

FORM NO. 22 R 10/09 SUBMIT IN QUADRUPPLICATE TO: ARM 36.22.307 ARM 36.22.601

MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE, BILLINGS, MONTANA 59102

Lease Name: Dagney 33-21

Lease Type (Private/State/Federal): Private

Application for Permit To:

Drill Deepen Re-enter
Oil Gas Other

Well Number: #3H

Operator: Kraken Operating LLC
Address: 9805 Katy Freeway Suite 300
City: Houston State: TX Zip: 77024
Telephone Number: 713-360-7705

Field Name or Wildcat: Wildcat
Unit Name (if applicable): N/A

Surface Location of Well (quarter-quarter and footage measurements): Lot 2 Sec 4 T25N R59E, 452' FNL 2322' FEL

Objective Formation(s): Bakken

Proposed Total Depth and Bottom-hole Location(s) if directional or horizontal well:
TD 26,293' MD, 10,587' TVD
NWNE Sec 21 T26N R59E, 205' FNL, 1860' FEL

Township, Range, and Section: Sec 4 T25N R59E

County: Richland County, MT

Elevation (indicate GL or KB): 2229' GL

Size and description of drilling/spacing unit and applicable order, if any: 1920 acres (Sections 21,28, & 33 T26N-R59E), Docket 27-2020

Formation at total depth: Bakken

Anticipated Spud Date: 1/1/2021

Hole Size	Casing Size	Weight / Foot	Grade (API)	Depth	Sacks of Cement	Type of Cement
13 1/2	9 5/8	36#	J-55	2165	686	See Attached
8 3/4	7	32#	P-110	10839	688	See Attached
6	4 1/2	13.5#	P-110	26293	839	See Attached

Describe Proposed Operations:
Describe or attach labeled diagram of blowout preventer equipment. Indicate if air drilled or describe mud program.
See attachments for details

Kraken Operating, LLC requests variance to not run open hole logs on the subject well. Offset logs can be found for the E. Owens 1-32 (API # : 25-083-21780), located SWSE Sec. 32 T26N R59E.

BOARD USE ONLY

Approved (date) JUN 18 2020 Permit Fee \$150.00

By [Signature] Check Number 34574

Title Petroleum Engineer Permit Expires DEC 18 2020

Permit Number 32523

API Number: 25 - 083 - 23392

The undersigned hereby certifies that the information contained on this application is true and correct:

Signed (Agent) [Signature]

Title Sr. Drilling Engineer

Date 6/11/2020

Telephone Number 713-360-7705 EXT. 121

Samples Required: NONE ALL FROM _____ feet to _____ feet

Core chips to address below, full cores to USGS, Core Laboratory, Arvada, CO. Required samples must be washed, dried and delivered prepaid to:

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings, MT 59102

PLAINTIFFS' EXHIBIT
P283

JUN 17 2020

SUPPLEMENTAL INFORMATION

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Note: Additional information or attachments may be required by Rule or by special request.

1. Attach a survey plat certified by a registered surveyor. The survey plat must show the location of the well with reference to the nearest lines of an established public survey.
2. Attach an 8 1/2 x 11" photocopy of that portion of a topographic map showing the well location, the access route from county or other established roads, residences, and water wells within a 1/2 mile radius of the well.
3. Attach a sketch of the well site showing the dimensions and orientation of the site, the size and location of pits, topsoil stockpile, and the estimated cut/fill at the corners and centerstake. (Note: the diagram need not be done by an engineer or surveyor). Attach a sketch of a top view and two side views of the reserve pit(s), if utilized. The reserve pit sketch must show the length, width, depth, cut and fill, amount of freeboard, area of topsoil stockpile, and the height and width of berms.
4. Describe the type and amount of material or liner, if any, to be used to seal the reserve pit. If a synthetic liner is used, indicate the liner thickness (mils), bursting strength, tensile strength, tear strength, puncture resistance, hydrostatic resistance, or attach the manufacturer's specifications.
5. Describe the proposed plan for the treatment and/or the disposal of reserve pit fluids and solids after the well is drilled. If the operator intends to dispose of or treat the reserve pit contents off-site, specify the location and the method of waste treatment and disposal. (Note: The operator must comply with all applicable federal, state, county, and local laws and regulations with regard to the handling, transportation, treatment, and disposal of solid wastes.)
6. Does construction of the access road or location, or some other aspect of the drilling operation require additional federal, state, or local permits or authorizations? If yes, indicate the type of permit or authorization required:
 - No additional permits needed
 - Stream crossing permit (apply through county conservation district)
 - Air quality permit (apply through Montana Department of Environmental Quality)
 - Water discharge permit (apply through Montana Department of Environmental Quality)
 - Water use permit (apply through Montana Department of Natural Resources and Conservation)
 - Solid waste disposal permit (apply through Montana Department of Environmental Quality)
 - State lands drilling authorization (apply through Montana Department of Natural Resources and Conservation)
 - Federal drilling permit (specify agency)
 - Other federal, state, county, or local permit or authorization: (specify type) _____

NOTICES:

1. Date and time of spudding must be reported to the Board verbally or in writing within 72 hours after the commencement of drilling operations.
2. The operator must give notice of drilling operations to the surface owner as required by Section 82-10-503, MCA, before the commencement of any surface activity.

BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

WARNING: Failure to comply with conditions of approval may void this permit.

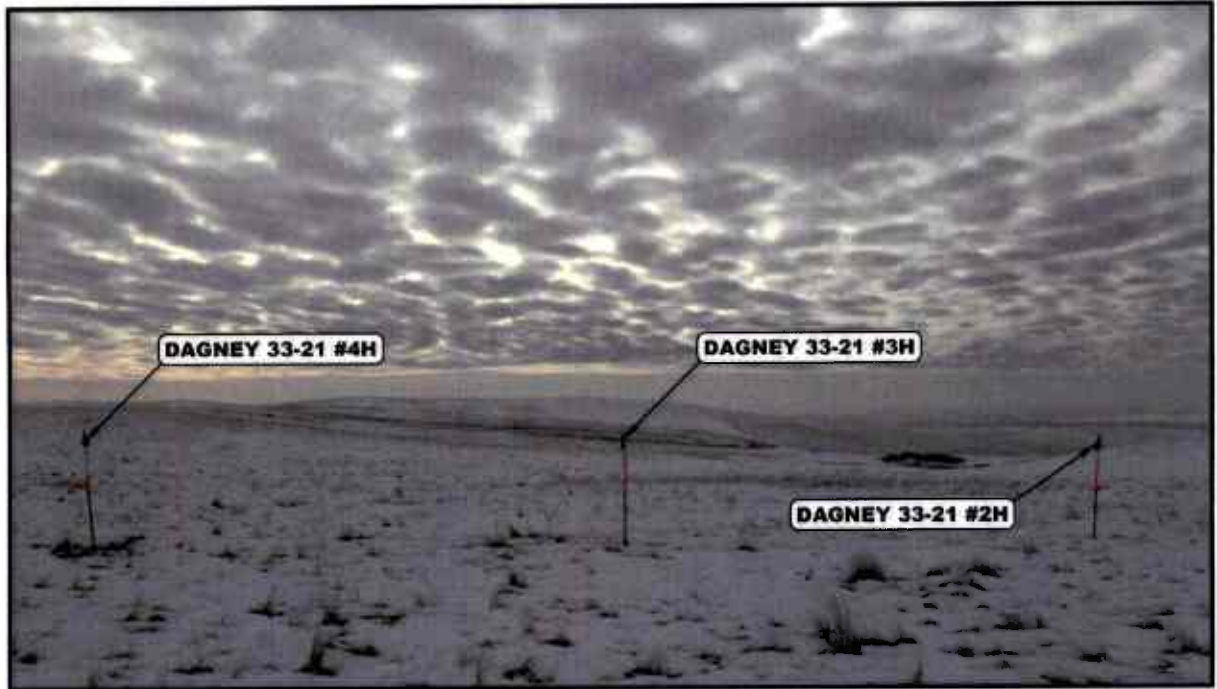


PHOTO: VIEW OF LOCATION STAKES

CAMERA ANGLE: SOUTHERLY

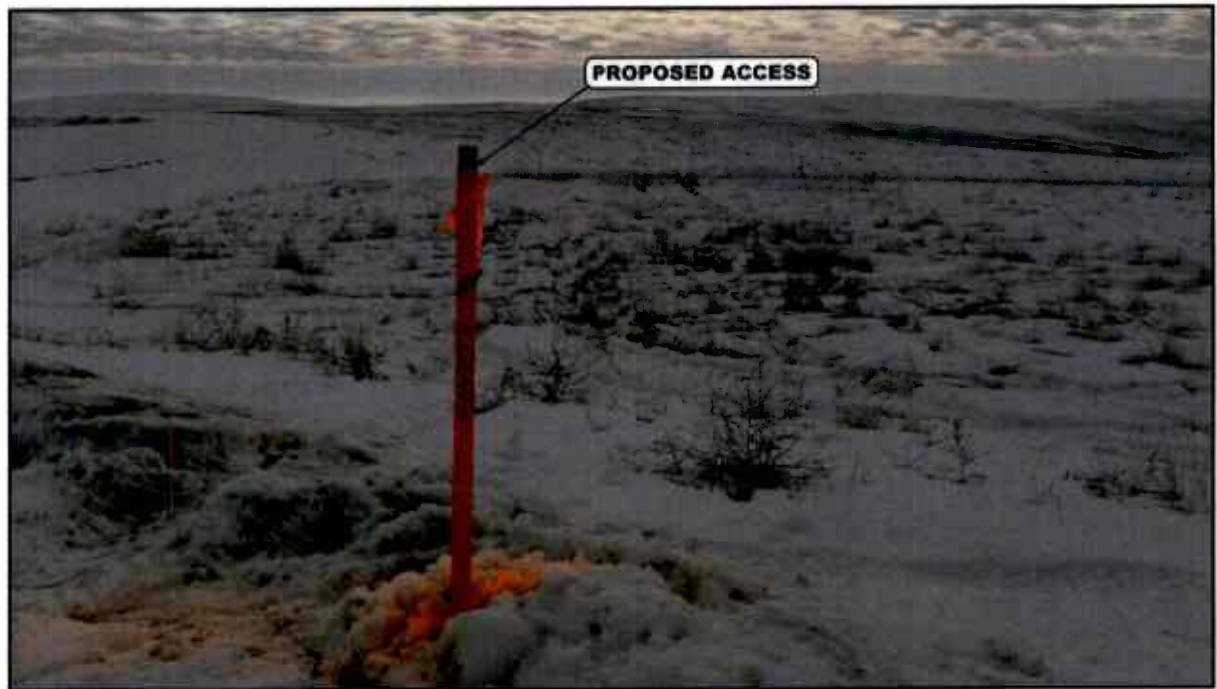


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY

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Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

KRAKEN OPERATING, LLC

**DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA**

TAKEN BY	S.K., T.R.	06-29-18	
DRAWN BY	S.C.S.	07-25-18	
LOCATION PHOTOS		PHOTO	

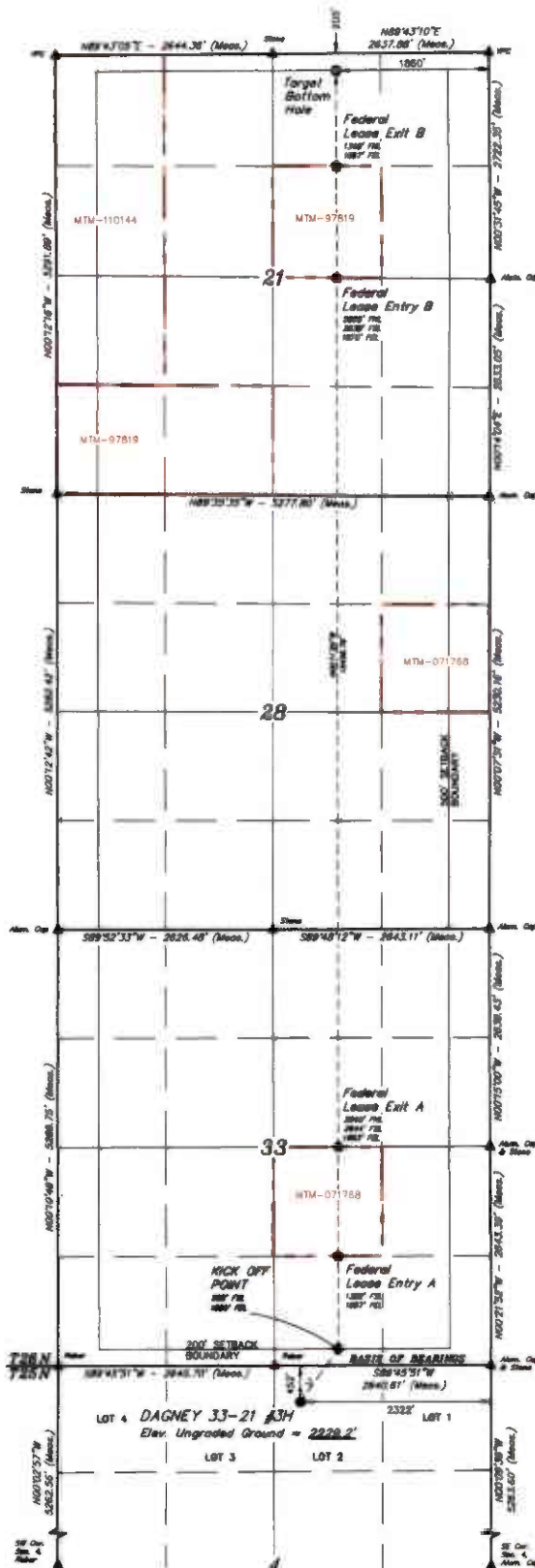
T25N, R59E, P.M.M.

LEGEND:

- = PROPOSED WELLHEAD
- = HICK-OFF POINT
- = TABBET BOTTOM HOLE
- ▲ = SECTION CORNER LOCATION

NOTE:
Distances referenced on plot to section lines are perpendicular.

LINE	DIRECTION	LENGTH
L1	N34°54'07"E	800.40'
L2	S89°46'30"W	1218.00'
L3	S89°46'40"W	1218.00'
L4	N89°27'10"W	1208.10'
L5	N89°27'10"W	1202.30'
L6	S89°46'31"W	1202.30'



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NAD 83 (SURFACE) LOCATION	NAD 83 (HICK-OFF POINT)
NAD 83 (SURFACE) LOCATION LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)	NAD 83 (HICK-OFF POINT) LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)
NAD 83 (SURFACE) LOCATION LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)	NAD 83 (HICK-OFF POINT) LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)
NAD 83 (SURFACE) LOCATION LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)	NAD 83 (HICK-OFF POINT) LATITUDE = 47°57'11.00" N (47 933 323) LONGITUDE = 104°08'18.11" W (104 052 223)

NAD 83 (FEDERAL LEASE ENTRY B)	NAD 83 (FEDERAL LEASE ENTRY B)	NAD 83 (FEDERAL LEASE ENTRY B)	NAD 83 (FEDERAL LEASE ENTRY B)
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CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

[Signature]
REGISTERED LAND SURVEYOR
STATE OF MONTANA

BASIS OF BEARINGS
BASIS OF BEARINGS IS A G.P.S. OBSERVATION

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Vernal, UT 84078 • (435) 788-6917

NAD 83 (FEDERAL LEASE ENTRY B)
LATITUDE = 47°57'11.00" N (47 933 323)
LONGITUDE = 104°08'18.11" W (104 052 223)

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LATITUDE = 47°57'11.00" N (47 933 323)
LONGITUDE = 104°08'18.11" W (104 052 223)

REV. 05-30-20 S.C.S. (ADD KOP, BHL, AND FEDERAL MINERALS)

KRAKEN OPERATING, LLC

DAGNEY 33-21 #3H
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA

SURVEYED BY: S.K. PR. 01-30-20 SCALE: 1" = 1000'
DRAWN BY: J.C.B. 02-10-20

WELL LOCATION PLAT

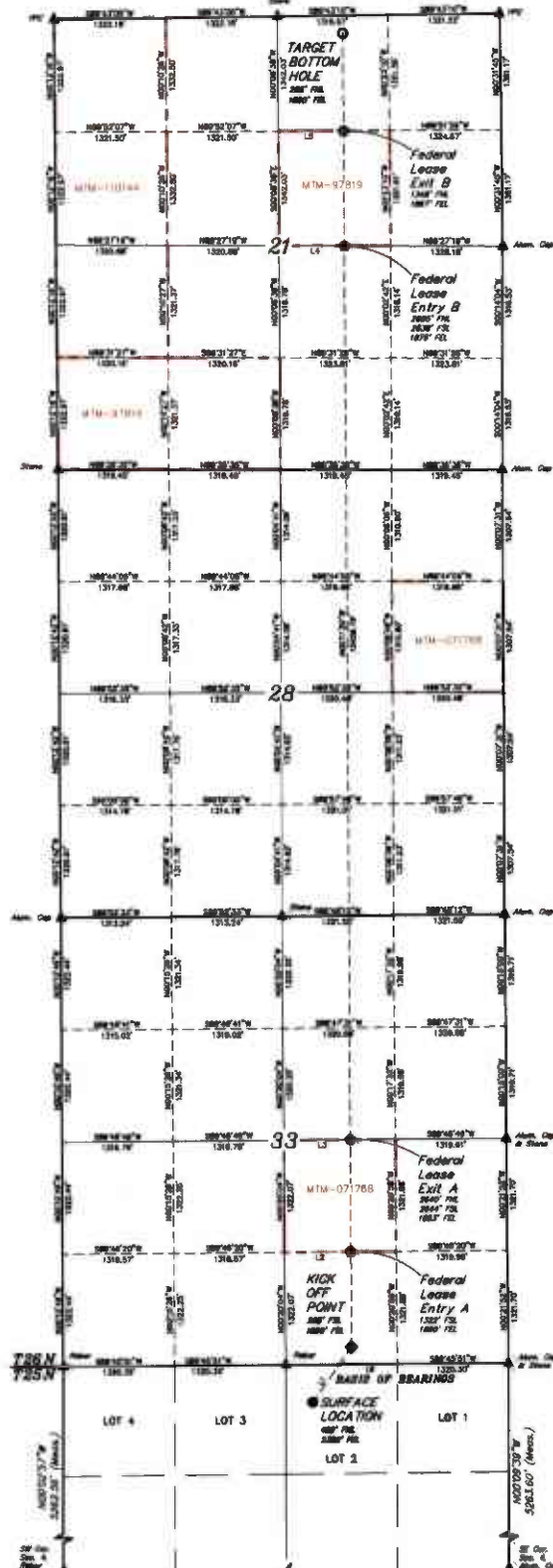
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- LEGEND:**
- PROPOSED WELLHEAD
 - KICK-OFF POINT
 - TARGET BOTTOM HOLE
 - ▲ SECTION CORNER LOCAL

LINE	DIRECTION	LENGTH
L1	N54°30'00"W	893.44'
L2	S88°42'00"W	1216.88'
L3	S88°42'00"W	1216.88'
L4	N88°27'17"W	1208.14'
L5	S88°42'00"W	1262.20'
L6	S88°42'00"W	1262.20'



NAD 83 POINT LOCATION	NAD 83 POINT COORDINATES	NAD 83 POINT LOCATION	NAD 83 POINT COORDINATES
1. SURFACE LOCATION	N: 4370.00, E: 10000.00	2. KICK OFF POINT	N: 4370.00, E: 10000.00
3. FEDERAL LEASE ENTRY A	N: 4370.00, E: 10000.00	4. FEDERAL LEASE ENTRY B	N: 4370.00, E: 10000.00
5. FEDERAL LEASE EXIT A	N: 4370.00, E: 10000.00	6. FEDERAL LEASE EXIT B	N: 4370.00, E: 10000.00
7. FEDERAL LEASE ENTRY A	N: 4370.00, E: 10000.00	8. FEDERAL LEASE ENTRY B	N: 4370.00, E: 10000.00
9. FEDERAL LEASE EXIT A	N: 4370.00, E: 10000.00	10. FEDERAL LEASE EXIT B	N: 4370.00, E: 10000.00

NAD 83 POINT LOCATION	NAD 83 POINT COORDINATES	NAD 83 POINT LOCATION	NAD 83 POINT COORDINATES
11. FEDERAL LEASE ENTRY A	N: 4370.00, E: 10000.00	12. FEDERAL LEASE ENTRY B	N: 4370.00, E: 10000.00
13. FEDERAL LEASE EXIT A	N: 4370.00, E: 10000.00	14. FEDERAL LEASE EXIT B	N: 4370.00, E: 10000.00
15. FEDERAL LEASE ENTRY A	N: 4370.00, E: 10000.00	16. FEDERAL LEASE ENTRY B	N: 4370.00, E: 10000.00
17. FEDERAL LEASE EXIT A	N: 4370.00, E: 10000.00	18. FEDERAL LEASE EXIT B	N: 4370.00, E: 10000.00

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

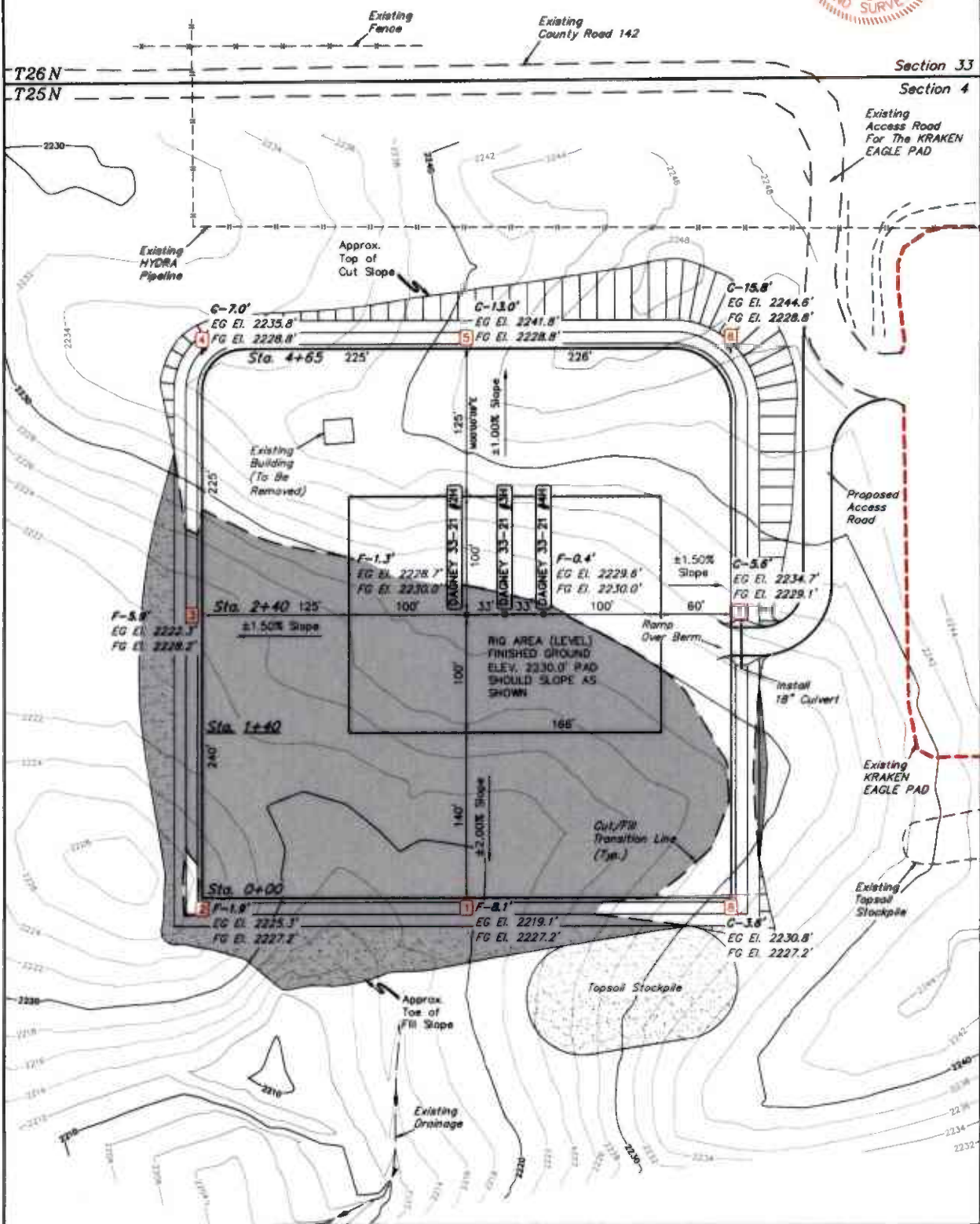
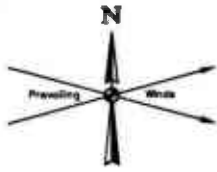
[Signature]
 REGISTERED LAND SURVEYOR
 STATE OF MONTANA

REV 01 03-20 S.C.S. (ADD KOP, BHL AND FEDERAL MINERALS)

KRAKEN OPERATING, LLC
 DAGNEY 33-21 #3H
 LOT 2, SECTION 4, T25N, R59E, P.M.M.
 RICHLAND COUNTY, MONTANA

SURVEYED BY	S.R. FR	DATE	01-19-20	SCALE	1" = 100'
DRAWN BY	S.C.S.	DATE	02-12-20		

SECTION BREAKDOWN



FINISHED GRADE ELEVATION - 2230.0'

Earthwork calculations requires fill @ the location stakes for balance. All fill is to be compacted to a minimum of 95% of the maximum dry density obtained by AASHTO method 1-99.

- NOTES:**
- Round corners at 35' radius or as needed.
 - Contours shown at 2' intervals.
 - Cut/Fill slopes 3:1 (Typ. except where noted).

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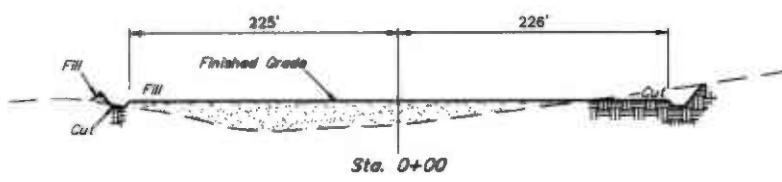
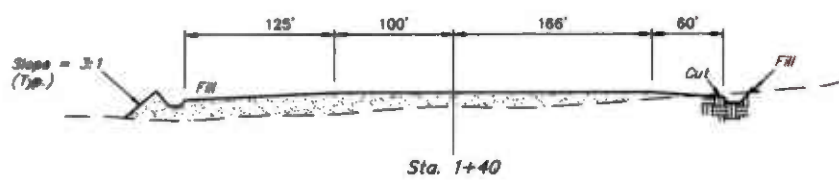
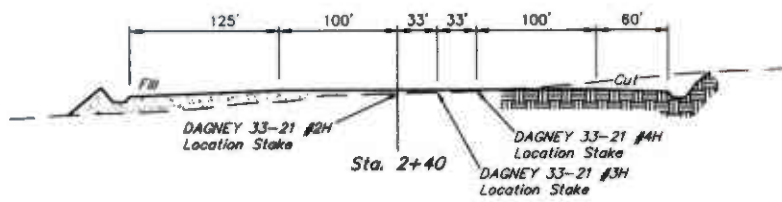
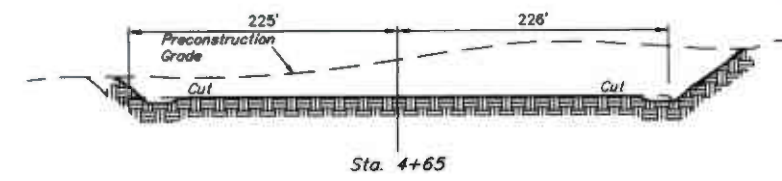
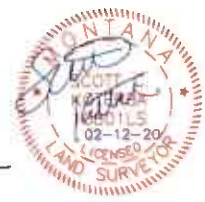


UELS, LLC
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Vernal, UT 84078 • (435) 789-1017

SURVEYED BY	S.K. T.R.	01-29-20	SCALE
DRAWN BY	S.K.	02-05-20	1" = 80'
PAD LAYOUT		FIGURE #1	

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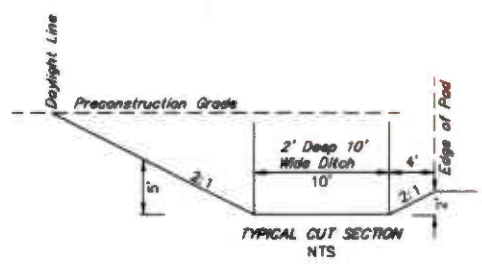
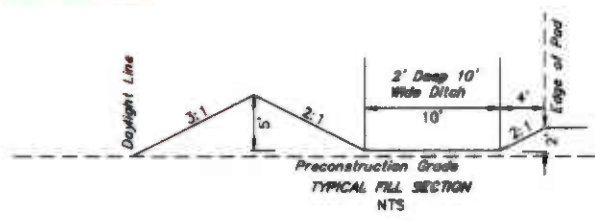
1" = 40'
 X-Section Scale
 1" = 100'



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APPROXIMATE EARTHWORK QUANTITIES	
(6") TOPSOIL STRIPPING	5,510 Cu. Yds.
REMAINING LOCATION	37,740 Cu. Yds.
TOTAL CUT	43,250 Cu. Yds.
FILL	37,740 Cu. Yds.
EXCESS MATERIAL	5,510 Cu. Yds.
TOPSOIL	5,510 Cu. Yds.
EXCESS UNBALANCE <small>(After Intrinsic Rehabilitation)</small>	0 Cu. Yds.

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±7.170
50' WIDE ACCESS ROAD R-O-W DISTURBANCE	±315'	±0.362
TOTAL SURFACE USE AREA		±7.532

- NOTES:
- Fill quantity includes 30% for compaction
 - Calculations based on 6" of topsoil stripping.
 - Cut/Fill slopes 3:1 (Typ. except where noted).

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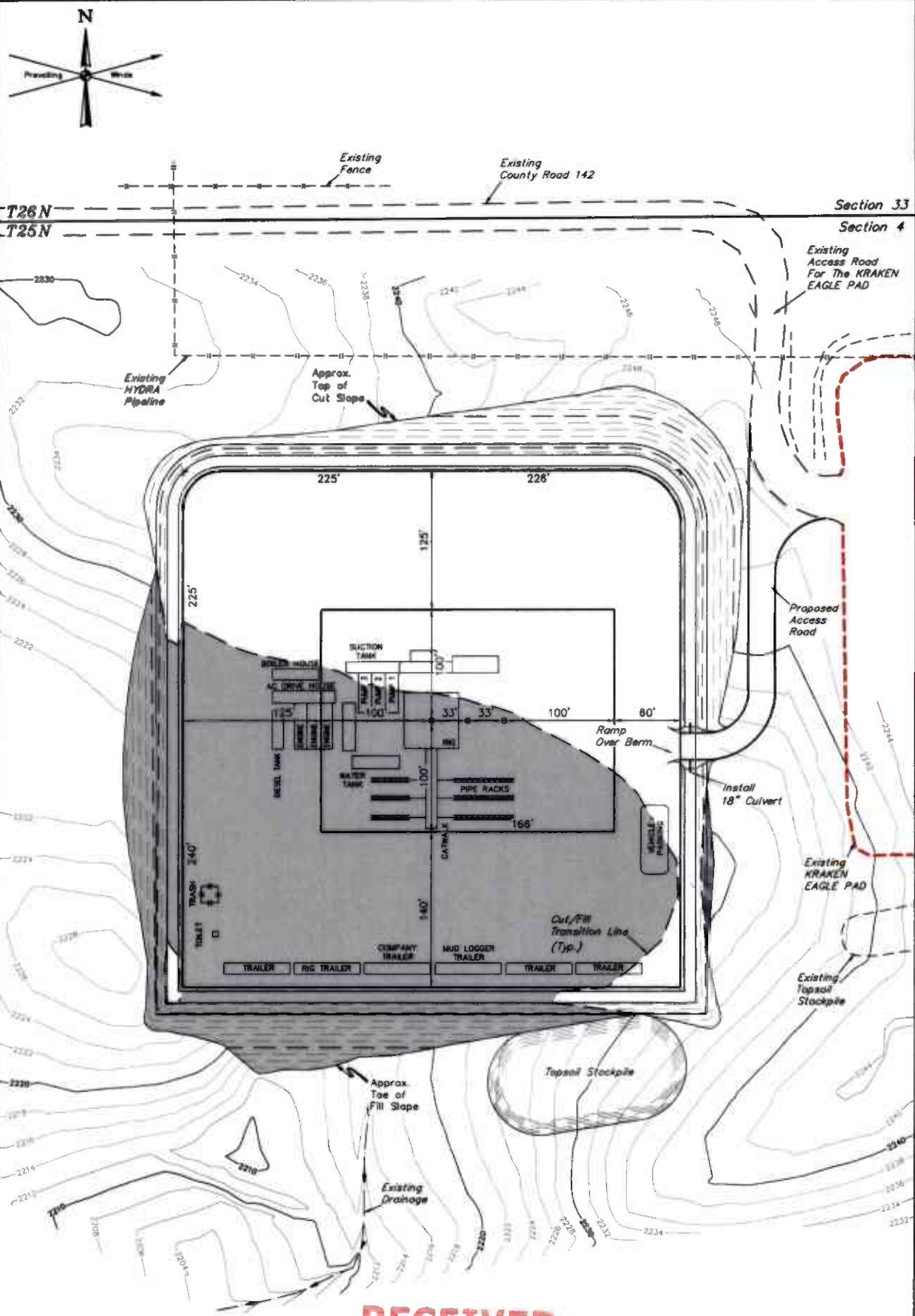
DAGNEY SOUTH PAD
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 RICHLAND COUNTY, MONTANA



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SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.K.	02-05-20	AS SHOWN

TYPICAL CROSS SECTIONS FIGURE #2



NOTES:
 * Contours shown at 2' intervals.

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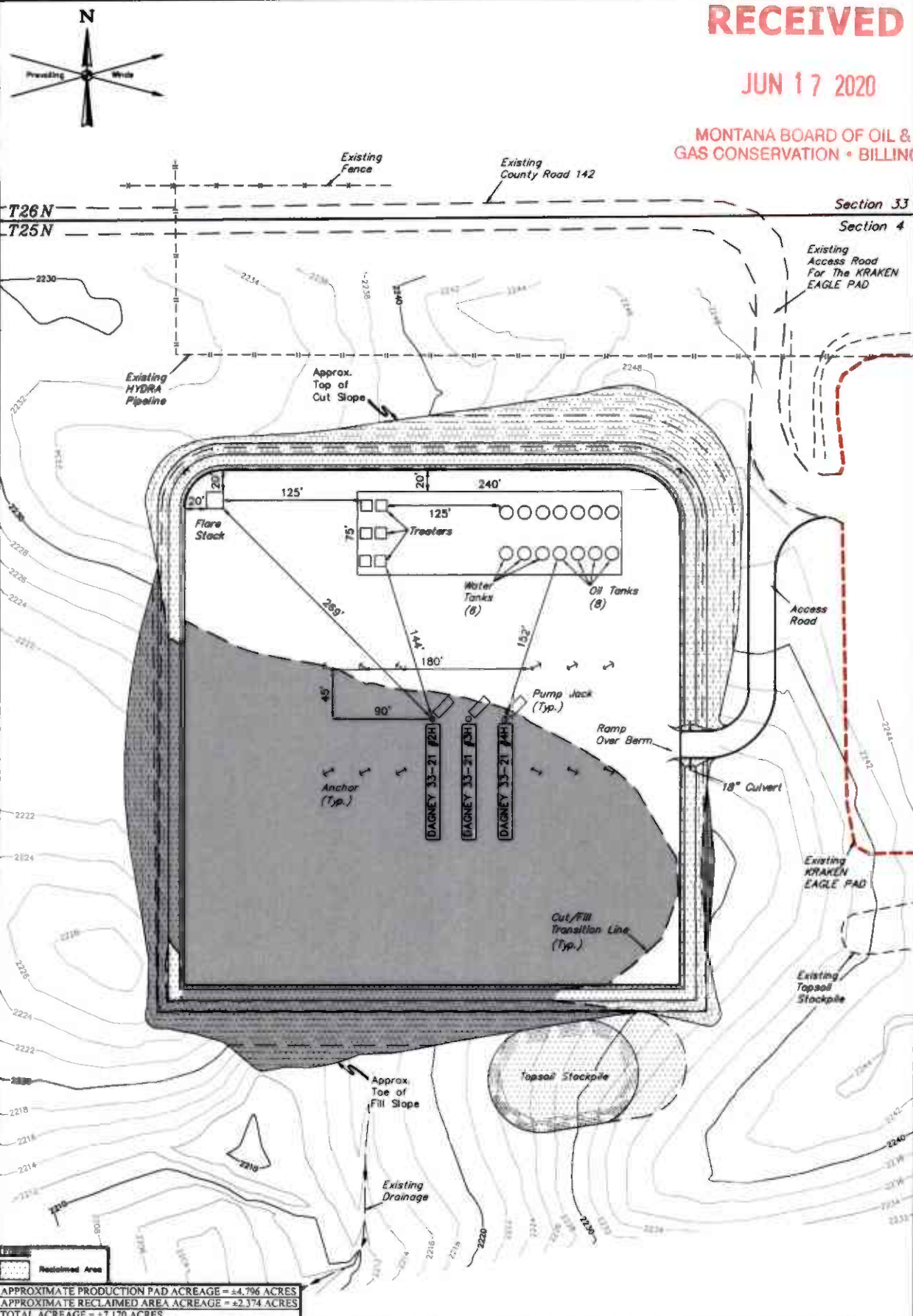
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 GAS CONSERVATION - BILLINGS**

SURVEYED BY	S.K. Y.H.	01-20-20	SCALE
DRAWN BY	S.K.	02-05-20	1" = 80'
TYPICAL RIG LAYOUT			FIGURE #3

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APPROXIMATE PRODUCTION PAD ACREAGE = ±4.796 ACRES
 APPROXIMATE RECLAIMED AREA ACREAGE = ±2.374 ACRES
 TOTAL ACREAGE = ±7.170 ACRES

- NOTES:**
- Contours shown at 2' intervals
 - Flare stack is to be located a min. of 100' from the wellhead.

KRAKEN OPERATING, LLC

DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA

SURVEYED BY	S.K.F.R.	01-29-20	SCALE
DRAWN BY	S.K.F.R.	02-05-20	1" = 80'
INTERIM RECLAMATION PLAN FIGURE #4			

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Sec. 33

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SW 1/4

SE 1/4

Section Line T26 N
T25 N

Existing County Road 142

Existing Fence

Existing HYDRA Pipeline

SEE FIGURE #6

Existing Access Road For The KRAKEN EAGLE PAD

Install 18" Culvert Existing KRAKEN EAGLE PAD

LOT 2
SECTION 4, T25N, R59W, 5th P.M.
LAND OWNER: KITTLESON FAMILY PARTNERSHIP LP
315 FEET (19.09 RODS) 0.382 ACRES

NW 1/4

1/4 Section Line

1/16 Section Line

NE 1/4

Sec. 4

NOTES:

KRAKEN OPERATING, LLC

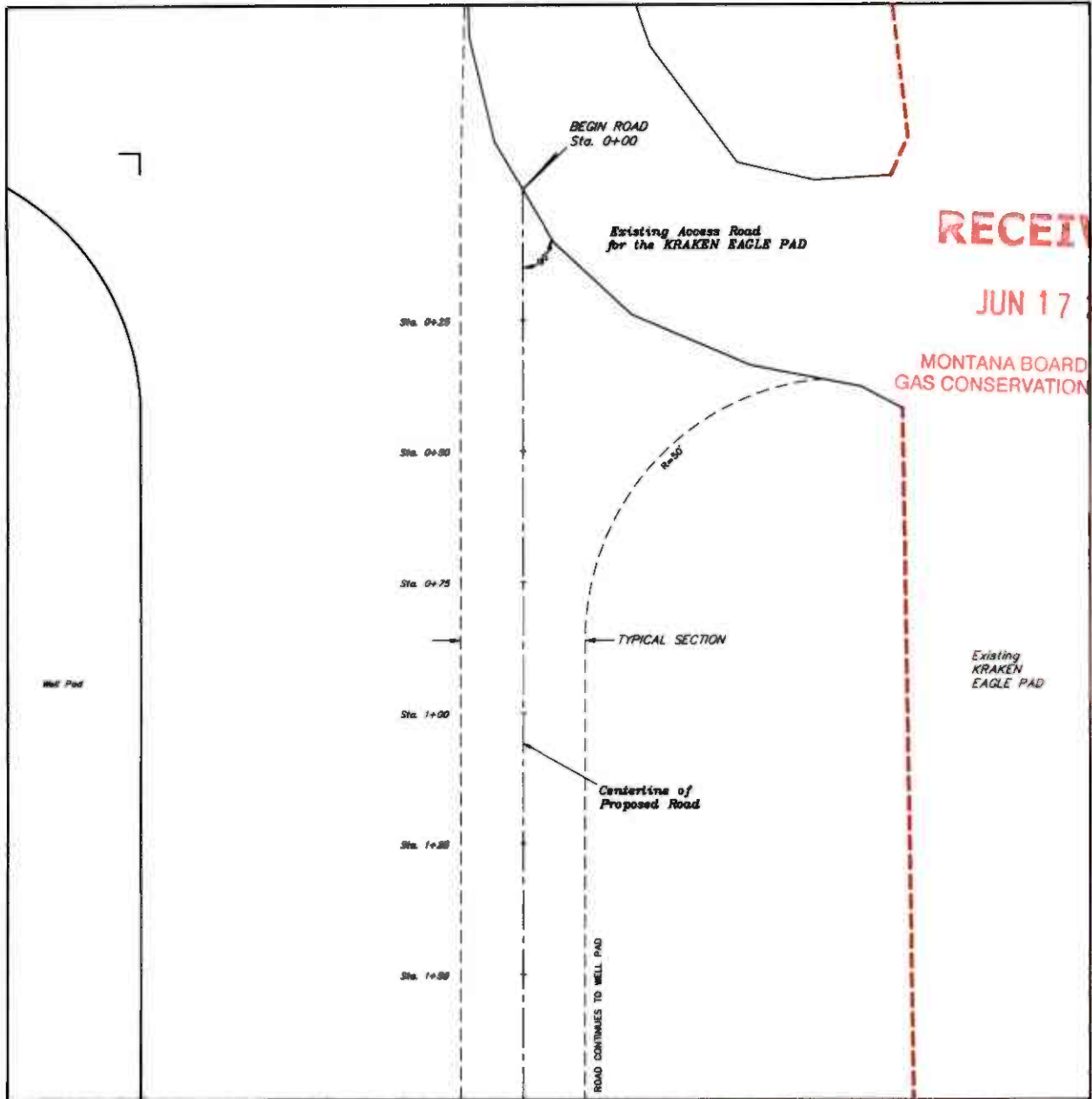
DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA



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Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1" = 200'

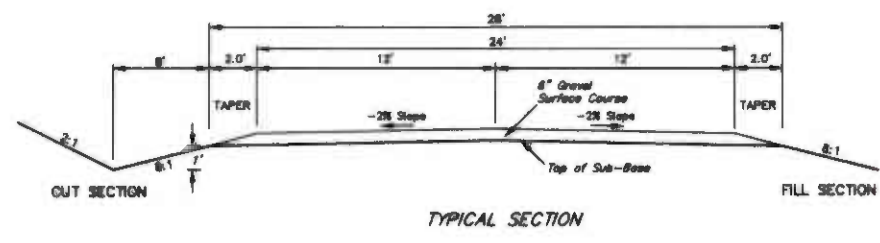
ACCESS ROAD LAYOUT FIGURE #5



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- NOTES:**
- Access centerline profile must slope away from road with a maximum of 3% for 25' also, maximum grade of 8% is required beyond 25' of road.
 - Cattle guard, if required, must be 3' wider than travel surface on each side.

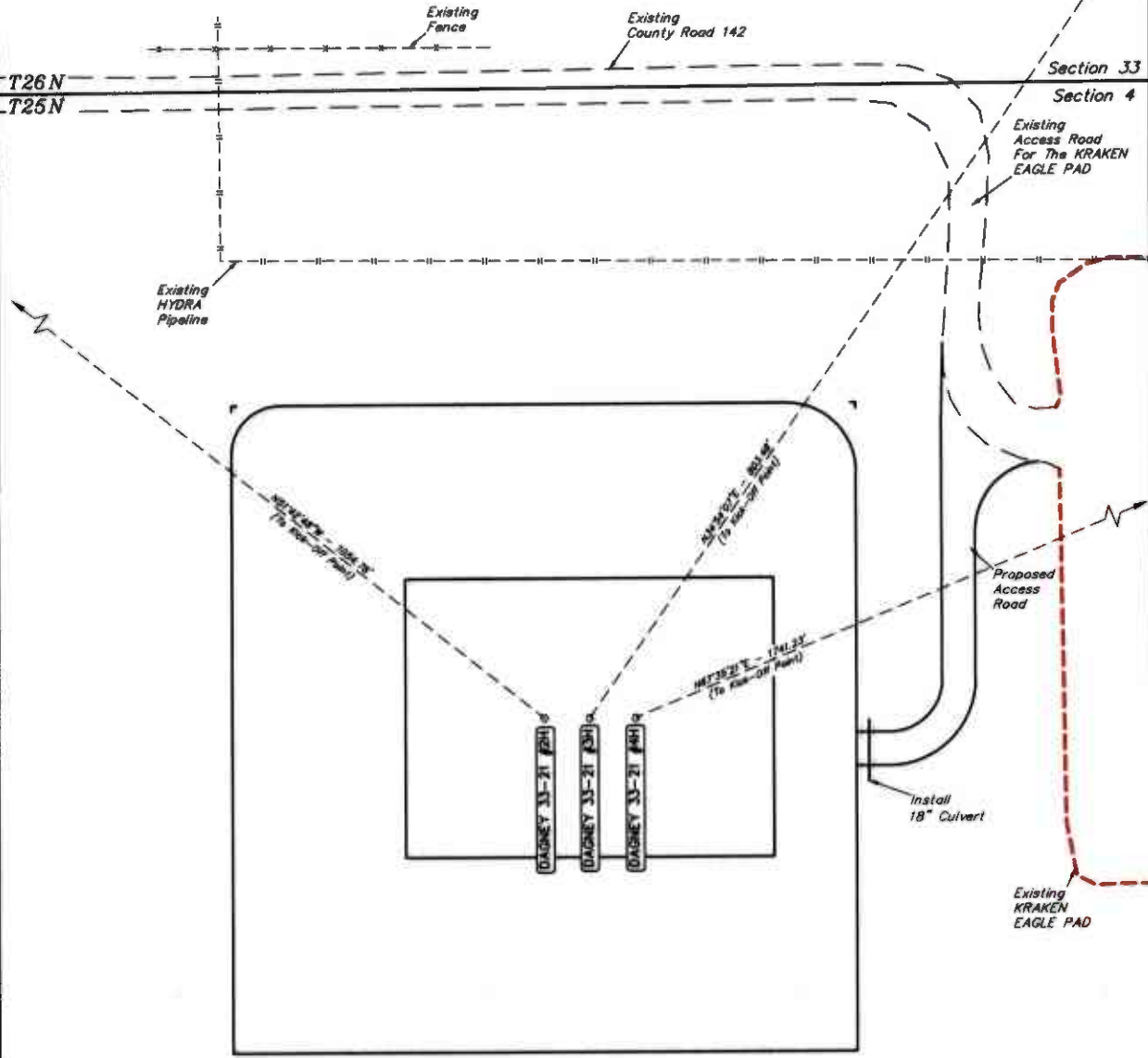
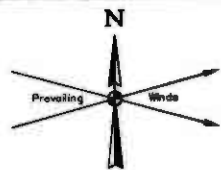
KRAKEN OPERATING, LLC

**DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA**

SURVEYED BY	S.K. T.R.	01-25-20	SCALE
DRAWN BY	S.C.S.	01-12-20	NONE
TYPICAL ROAD ACCESS FIGURE #6			



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REV: 01 03-30-20 S.C.S. (ADD BORE PATHS)

KRAKEN OPERATING, LLC

**DAGNEY SOUTH PAD
 LOT 2, SECTION 4, T25N, R59E, P.M.M.
 RICHLAND COUNTY, MONTANA**

SURVEYED BY	S.K. T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1" = 80'
MULTI-WELL PLAN			FIGURE #7

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**MONTANA BOARD OF OIL &
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PROCEED IN A WESTERLY DIRECTION FROM FAIRVIEW, MONTANA ALONG HIGHWAY 201 APPROXIMATELY 4.4 MILES TO THE JUNCTION OF THIS ROAD AND COUNTY ROAD 351 TO THE NORTHWEST; TURN RIGHT AND PROCEED IN A NORTHWESTERLY, THEN NORTHERLY DIRECTION APPROXIMATELY 6.1 MILES TO THE JUNCTION OF THIS ROAD AND COUNTY ROAD 142 TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.6 MILES TO THE EXISTING EAGLE PAD ACCESS ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 235' TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 315' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM FAIRVIEW, MONTANA TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 12.2 MILES.

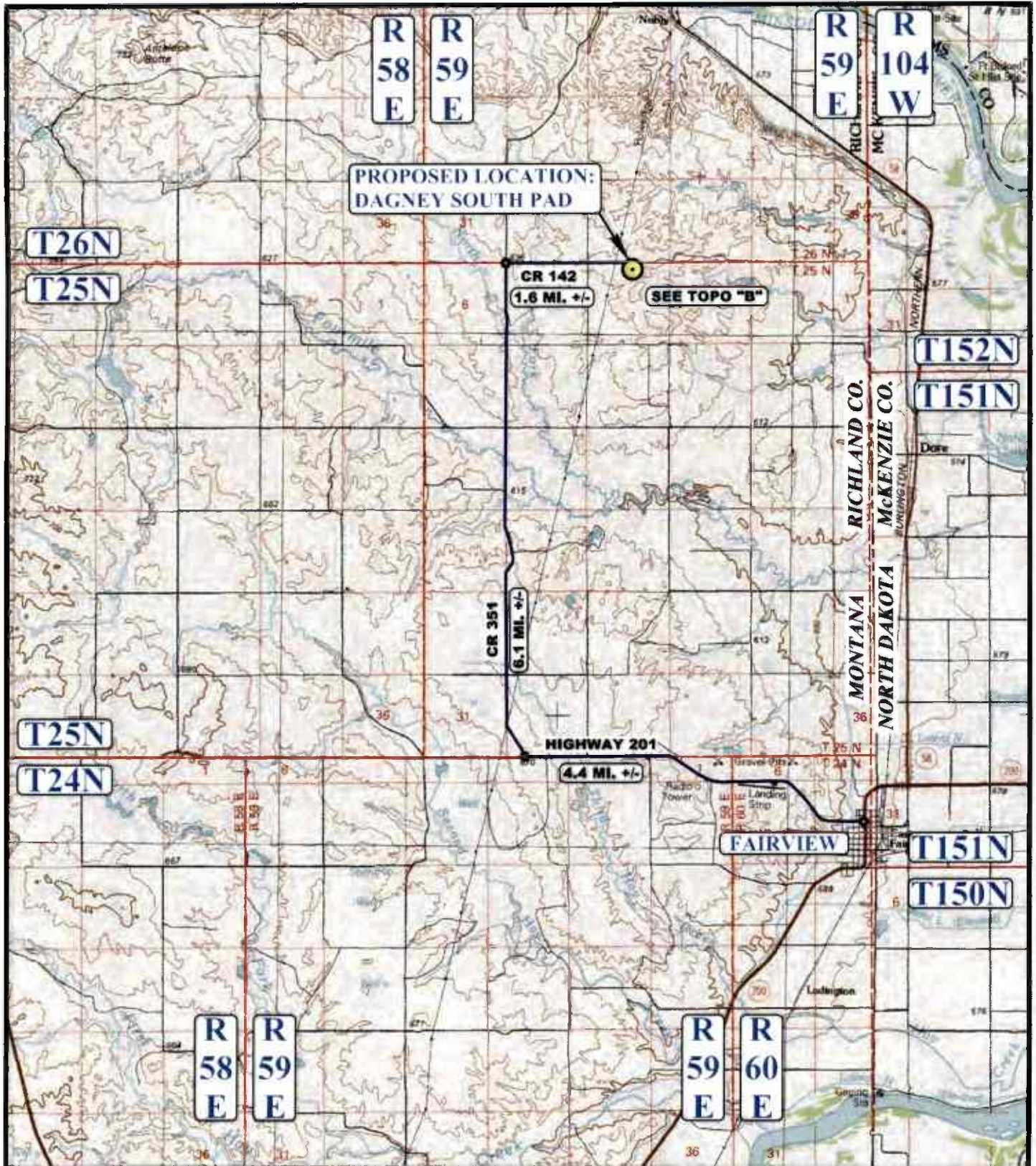
KRAKEN OPERATING, LLC

**DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA**

SURVEYED BY	S.K., T.R.	01-29-20	
DRAWN BY	S.C.S.	02-12-20	
ROAD DESCRIPTION			



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LEGEND:

● PROPOSED LOCATION

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N

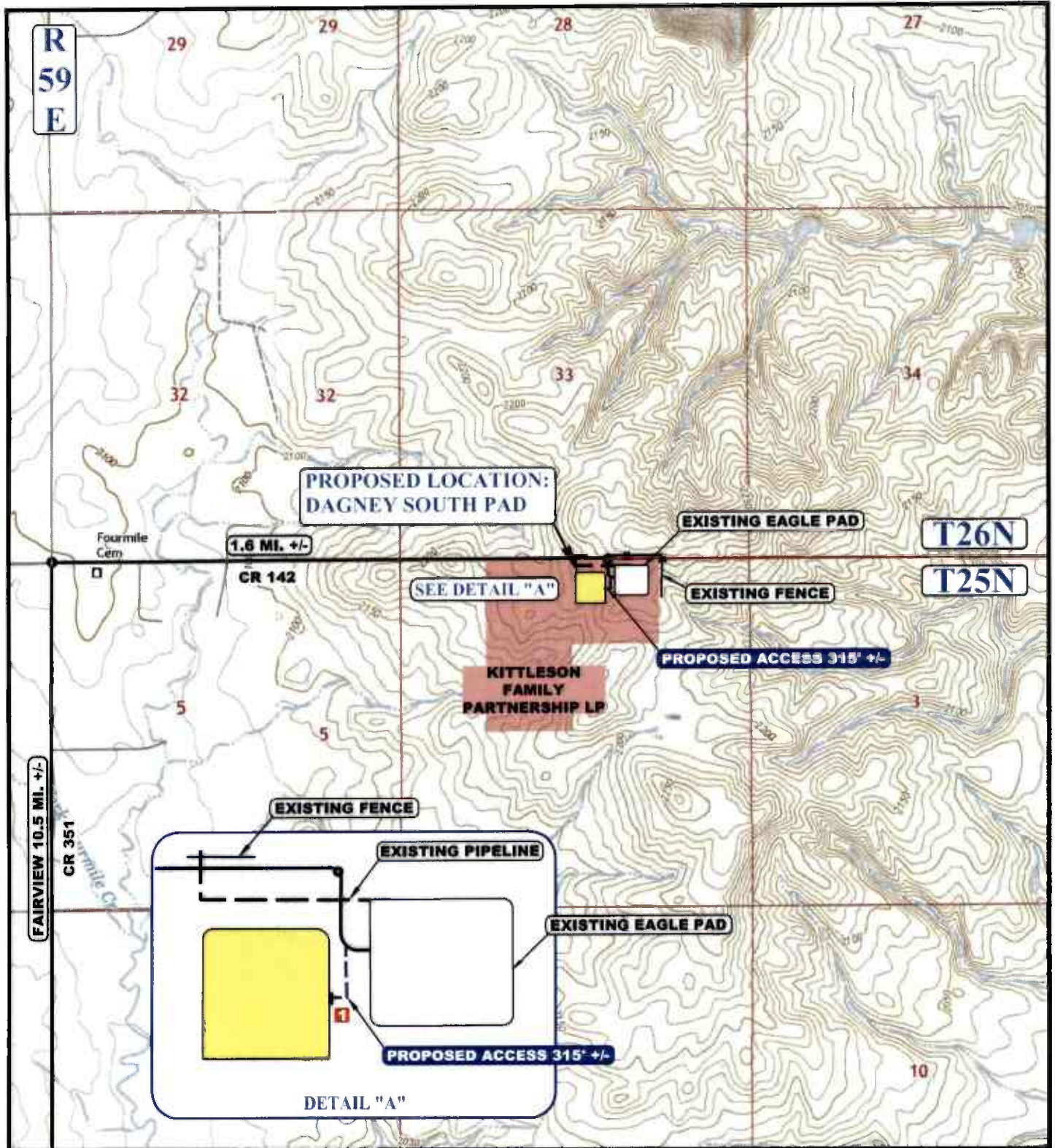
KRAKEN OPERATING, LLC

**DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA**



UELS LLC
Corporate Office - 85 South 200 East
Vernal, UT 84078 • (435) 789-1017

SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1 : 100,000
ACCESS ROAD MAP			TOPO A



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- EXISTING ROAD
- PROPOSED ROAD
- EXISTING FENCE
- EXISTING PIPELINE
- INSTALL 18" CULVERT



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017



KRAKEN OPERATING, LLC

DAGNEY SOUTH PAD
 LOT 2, SECTION 4, T25N, R59E, P.M.M.
 RICHLAND COUNTY, MONTANA

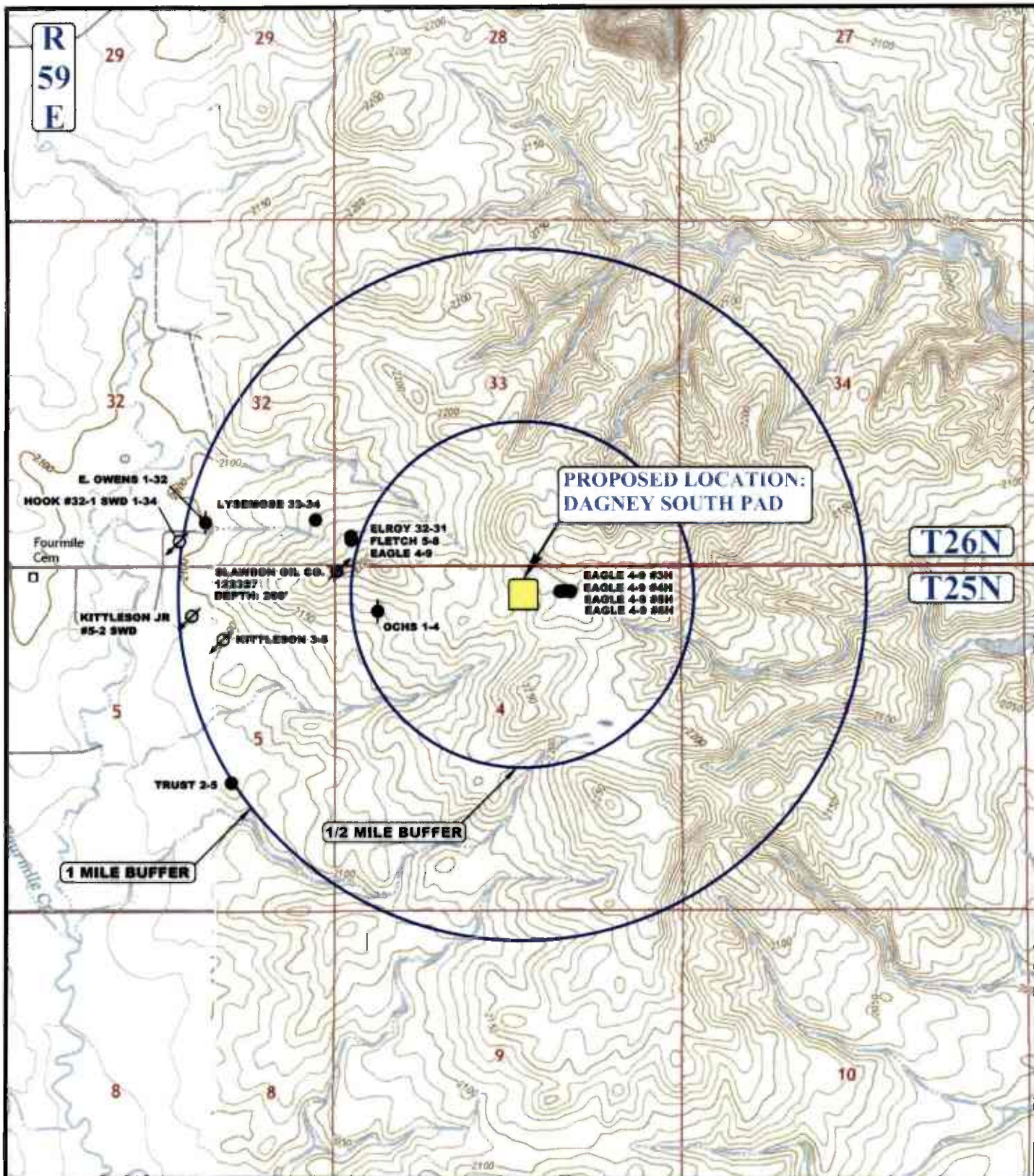
SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1 : 24,000
ACCESS ROAD MAP			TOPO B

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P-0023311



LEGEND:

- ⊗ DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- ⊗ WATER WELLS
- ◆ ABANDONED WELLS
- TEMPORARILY ABANDONED
- ⊗ CONFIDENTIAL



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KRAKEN OPERATING, LLC

DAGNEY SOUTH PAD
 LOT 2, SECTION 4, T25N, R59E, P.M.M.
 RICHLAND COUNTY, MONTANA

SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1 : 24,000
WELL PROXIMITY MAP			TOPO C

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P-0023313

R
59
E

PROPOSED LOCATION:
DAGNEY SOUTH PAD

T26N
T25N



1/2 MILE BUFFER

NO EXISTING DWELLINGS
WITHIN 1/2 MILE BUFFER

LEGEND:

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KRAKEN OPERATING, LLC

DAGNEY SOUTH PAD
LOT 2, SECTION 4, T25N, R59E, P.M.M.
RICHLAND COUNTY, MONTANA

SURVEYED BY	S.K., T.R.	01-29-20	SCALE
DRAWN BY	S.C.S.	02-12-20	1 : 12,000

AERIAL MAP

TOPO 1



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**MONTANA BOARD OF OIL &
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Kraken Operating, LLC

Dagney 33-21 #3H
Lot 2 Sec 4 T25N R59E
452' FNL 2322' FEL
Richland County, MT

Drilling Program

- 1** Build and construct location.
- 2** Drill 20" OH and set 16" conductor pipe and rathole/mousehole
- 3** MIRU Drilling Rig.
- 4** Drill 13 1/2" surface hole from 80' to 2165'.
- 5** Run and cement 9 5/8" 36# J-55 LT&C surface casing.
- 6** Make up 11" 5000 psi wellhead. NU BOP stack. Pressure test to 5000 psi high, 250 low.
- 7** Drill out with 8 3/4" PDC bit using invert mud. Drill to KOP at approx. 10147'.
- 8** Drill curve with 8 3/4" PDC while holding 13°/100 ft to 10839' ensuring casing shoe is past set back hard line in producing section.
- 9** Run and cement 7" 32# 7" P-110 BTC casing.
- 10** Set casing slips, change out BOP rams to 4", pressure test BOP.
- 11** Drill out with 6" PDC to approximately 26293' MD using brine.
- 12** Run 4 1/2" production liner and cement in place, test packoff, test 7" casing.
- 13** Release rig, RDMO drilling rig.

Kraken Operating, LLC

Dagney 33-21 #3H
Lot 2 Sec 4 T25N R59E
452' FNL 2322' FEL
Richland County, MT

Cementing Program

SURFACE CASING: 13 1/2" OH, 9 5/8" 36# J-55, LTC

Lead Cement: Halliburton Varicem, w/ 0.25 lb/sk Poly-E-Flake, 14.58 gal/sk fresh water
1665' - Surface = 1665'
445 sks

Tail Cement: Halliburton Varicem, w/ 0.25 lb/sk Poly-E-Flake, 7.39 gal/sk fresh water
2165' - 1665' = 500'
241 sks

PRODUCTION CASING: 8 3/4" OH, 7" 32# HCP-110, BTC

Tail Cement: Halliburton Extendacem, 9.64 gal/sk fresh water
10839' - 2165' = 8674'
688 sks

LINER: 6" OH, 4 1/2" 11.6# & 13.5# P-110, BTC

Lead Cement: Halliburton Extendacem, w/ 0.12% H-25, 0.65% HR-601, 7.10 gal/sk fresh water
26293' - 10072' = 16221'
839 sks

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Kraken Operating, LLC

Dagney 33-21 #3H
Lot 2 Sec 4 T25N R59E
452' FNL 2322' FEL
Richland County, MT

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Geologic Prognosis

Lease Name:	Dagney 33-21
Well Number:	#3H
Lease Type:	Private
Field Name:	Wildcat
Objective Formation:	Middle Bakken
Proposed TVD:	10587
Proposed TMD:	26293'
Lateral Length:	15454'

County/State:	Richland Co., Montana
Township, Range, and Section:	T26N-R59E, Sec. 21, 28, & 33
Surface Location:	Lot 2 Sec. 4 - 452' FNL & 2322' FEL
Bottom Hole Location:	NWNE Sec. 21 - 205' FNL & 1860' FEL
Latitude:	47°57'11.96" N
Longitude:	104°06'18.81" W
Original Elevation:	2229
Final Pad Elevation:	2230

Geology

Estimated Tops	Subsea	TVD	Estimated Tops	Subsea	TVD
Greenhorn	-2470	4726	Base Last Charles Salt	-6796	9052
Mowry (Top Dakota)	-2874	5130	Mission Canyon	-7057	9313
Newcastle	-3054	5310	Lodgepole	-7510	9766
Inyan Kara	-3293	5549	Upper Bakken Shale	-8276	10532
Swift	-3815	6071	Top Middle Bakken	-8288	10544
Spearfish	-4862	7118	Middle Bakken Target	-8301	10557
Amsden	-5354	7610	Base Middle Bakken	-8314	10570
Tyler	-5550	7806	Top Middle Bakken @ LP	-8298	10554
Kibbey Lime	-6066	8322	Middle Bakken Target @ LP	-8311	10567
Madison (Charles)	-6221	8477	Top Middle Bakken @ TD	-8318	10574
Ratcliffe	-6747	9003	Middle Bakken Target @ TD	-8331	10587

Kraken Operating, LLC

Dagney 33-21 #3H
Lot 2 Sec 4 T25N R59E
452' FNL 2322' FEL
Richland County, MT

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Mud Program

INTERVAL (feet)	MUD WEIGHT (lbs/gal)	VISCOSITY (sec/qt)	FLUID LOSS (ml/30 min)	MUD TYPE
0' - 2165'	8.3 - 9.0	28 - 34	No Control	Fresh Water
Set 9-5/8" Surface Casing				
2165' - 10839'	9.5 - 10.2	40 - 55	HTHP 10-15	75/25 to 80/20 Invert
Set 7" Intermediate Casing				
10839' - 26293'	9.4 - 9.8	28 - 30	No Control	Sodium Chloride Brine

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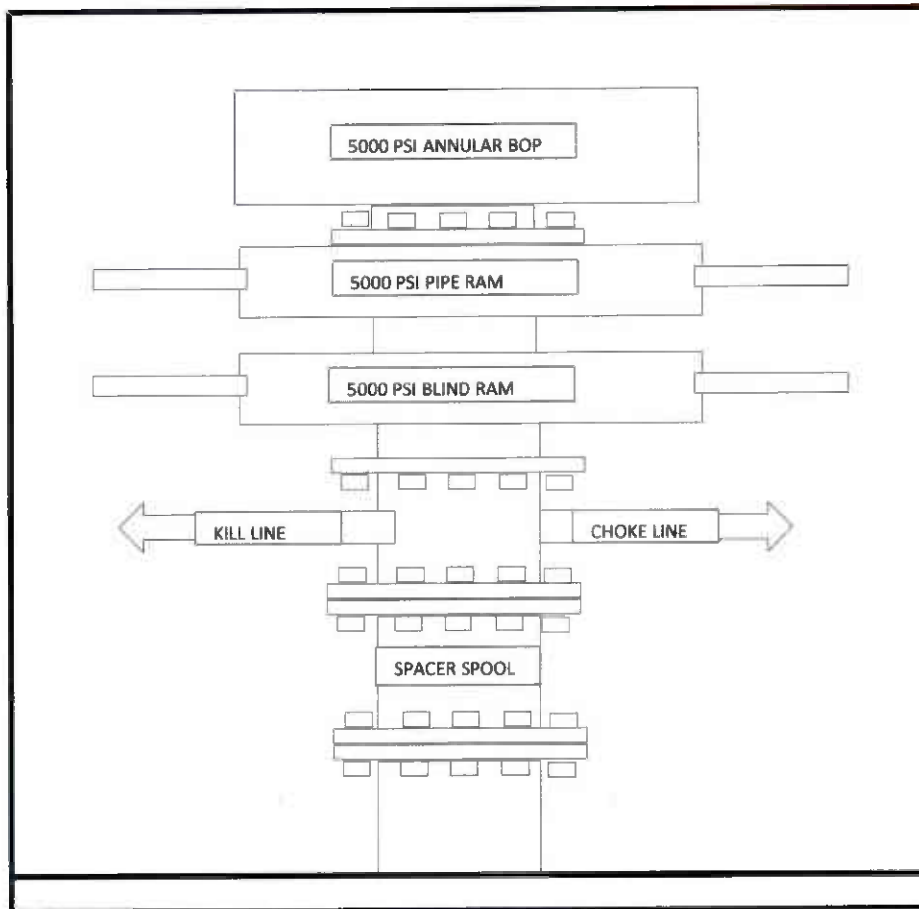
JUN 17 2020

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**

Kraken Operating, LLC

Dagney 33-21 #3H
Lot 2 Sec 4 T25N R59E
452' FNL 2322' FEL
Richland County, MT

BOP Schematic





Kraken Operating, LLC

9821 Katy Freeway – Ste. 460, Houston, TX 77024

Typical Completion Procedure Bakken or Three Forks

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After Drilling Rig Moves Off Location

1. MIRU wire line, RIH with gauge ring to at least 100 ft beyond liner top, POOH.
2. RIH and set retrievable plug in liner hanger or in completion liner, POOH with wireline. Run CBL-CCL-GR and casing inspection tool from liner top to surface.
3. Pressure test 7" (intermediate) casing and frac valve. Retrieve plug in liner top.
4. MI and fill frac tanks with fresh water to ensure there will be enough water for the designed frac job.
5. MIRU flowback company. Rig flowback iron from wellhead to 4 phase separator to open top tank.
6. MIRU all frac company equipment, wire line, and all ancillary equipment necessary to frac well.
7. Pump frac job as designed. RDMO frac equipment and wire line.
8. MIRU coiled tubing to mill out frac plugs.
9. Begin flowback of well. Once well has cleaned up, direct full well stream to production battery.
10. RDMO flowback equipment and crew.
11. Turn well over to production department.

Note:

If casing inspection log indicates excessive wear in 7" casing or other conditions require a frac string to be run, the CBL-GR-CCL and casing inspection tool will be run and the 7" casing pressure tested to a lower rating. After the frac string is run, a retrievable plug will be set and the frac string tested prior to the frac.

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Kraken Operating, LLC Proposed Well Stimulation

Total Clean Fluid – 235,000 bbls

Maximum Anticipated Treating Pressure – 9,800 psi

Hydraulic Fracturing Fluid Components Information Disclosure:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Mass per Component (LBS)	Maximum Ingredient Concentration in HF Fluid (% by mass)**
Water	Operator	Carrier	Carrier	7732-18-5	100.00%	82,315,800.00	84.06572%
Surf-Flo 430	Innospec	Flowback Additive	MSDS and Non-MSDS Ingredients Listed Below			7,435.80	0.00759%
FRP-1S	Liberty Oilfield Services	Friction reduction	MSDS and Non-MSDS Ingredients Listed Below			252,853.79	0.25823%
DVA-75	Liberty Oilfield Services	Diverting Agent	MSDS and Non-MSDS Ingredients Listed Below			469.00	0.00048%
Bioclear 5000	Liberty Oilfield Services	Biocide	MSDS and Non-MSDS Ingredients Listed Below			8,387.32	0.00857%
ScaleCease 7103	Innospec	Scale Inhibitor	MSDS and Non-MSDS Ingredients Listed Below			15,850.17	0.01619%
HCL-15	Liberty Oilfield Services	Solvent	MSDS and Non-MSDS Ingredients Listed Below			17,295.26	0.01766%
ACI-300	WST	Corrosion Inhibitor	MSDS and Non-MSDS Ingredients Listed Below			67.43	0.00007%
WA-100	WST	Wetting Agent	MSDS and Non-MSDS Ingredients Listed Below			34.79	0.00004%
IC-50S	WST	Iron Control	MSDS and Non-MSDS Ingredients Listed Below			125.74	0.00013%
Liberty Clean Out	Liberty Oilfield Services	Cleanup Solution	MSDS and Non-MSDS Ingredients Listed Below			74.86	0.00008%
Crystalline Silica	Liberty Oilfield Services	Sand	MSDS and Non-MSDS Ingredients Listed Below			15,300,000.00	15.62526%
The trade name(s) of the additive(s) used, supplier(s), and the purpose(s) of the additive(s) are listed above. The ingredient(s) for the above additive(s) are listed below.							
	Liberty Oilfield Services	Sand	Crystalline Silica (quartz)	14808-60-7	99.90%	15,284,700.00	15.60963%
	Liberty Oilfield Services	Sand	Aluminum Oxide	1344-28-1	1.00%	153,000.00	0.15625%
	Liberty Oilfield Services	Friction reduction	Petroleum distillates, hydrotreated light	64742-47-8	45.00%	113,784.20	0.11620%
	Liberty Oilfield Services	Sand	Iron Oxide	1309-37-1	0.10%	15,300.00	0.01563%
	Liberty Oilfield Services	Sand	Titanium Oxide	13463-67-7	0.10%	15,300.00	0.01563%
	Innospec	Scale Inhibitor	Water	7732-18-5	95.00%	15,057.66	0.01538%
	Liberty Oilfield Services	Solvent	Water	7732-18-5	85.00%	14,700.97	0.01501%
	Liberty Oilfield Services	Friction reduction	Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched	69011-36-5	3.00%	7,585.61	0.00775%
	Innospec	Flowback Additive	Water	7732-18-5	95.00%	7,064.01	0.00721%
	Liberty Oilfield Services	Solvent	Hydrochloric Acid	7647-01-0	15.00%	2,594.29	0.00265%
	Lubrizol	Biocide	2,2-dibromo-3-nitropropionamide	10222-01-2	10.00%	838.73	0.00086%
	Innospec	Scale Inhibitor	BHMT Phosphonate	Proprietary	5.00%	792.51	0.00081%
	Innospec	Scale Inhibitor	Proprietary Ingredient	Proprietary	5.00%	792.51	0.00081%
	Innospec	Flowback Additive	Benzene-sulfonic Acid, dodecyl-empd, with 2-aminoethanol	26836-07-7	10.00%	743.58	0.00076%
	Innospec	Flowback Additive	Dodecylbenzene sulfonate, triethanolamine salt	27323-41-7	10.00%	743.58	0.00076%
	Liberty Oilfield Services	Diverting Agent	Poly lactide Resin	9051-89-2	100.00%	469.00	0.00048%
	Innospec	Flowback Additive	Sodium Alpha Olefin Sulfonate	68439-57-6	5.00%	371.79	0.00038%
	WST	Iron Control	2-hydroxypropane-1,2,3-tricarboxylic acid	77-92-9	60.00%	75.45	0.00008%
	Liberty Oilfield Services	Cleanup Solution	Oxygenate and paraffinic stream	876065-86-0	99.00%	74.11	0.00008%
	WST	Wetting Agent	Ethoxylated Decyl Alcohol	78330-20-8	40.00%	13.92	0.00001%
	WST	Corrosion Inhibitor	2-Propyl-1-ol compound with methoxirane	38172-91-7	15.00%	10.11	0.00001%
	Liberty Oilfield Services	Cleanup Solution	C.I. Solvent Yellow 33	8003-22-3	1.00%	0.75	0.00000%
	Innospec	Flowback Additive	Triethanolamine	103-71-6	0.01%	0.67	0.00000%
	Innospec	Flowback Additive	Ethanolamine	141-43-5	0.01%	0.67	0.00000%



PROJECT DETAILS: Richland County, MT

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Montana
 System Datum: Mean Sea Level
 Local North: True

Project: Richland County, MT
 Site: Dagney South Pad
 Well: Dagney 33-21 #3H
 Wellbore: OH
 Design: Plan 1



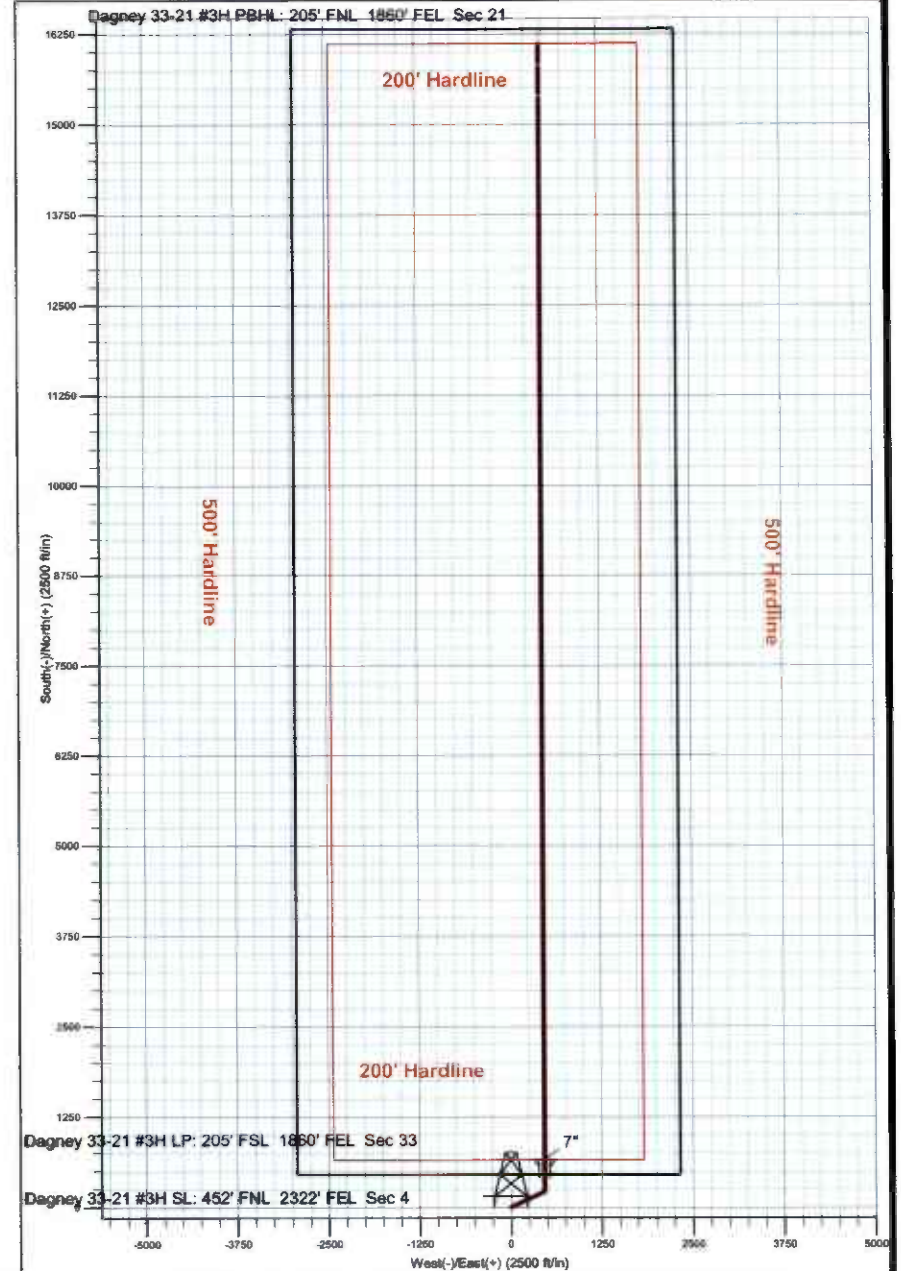
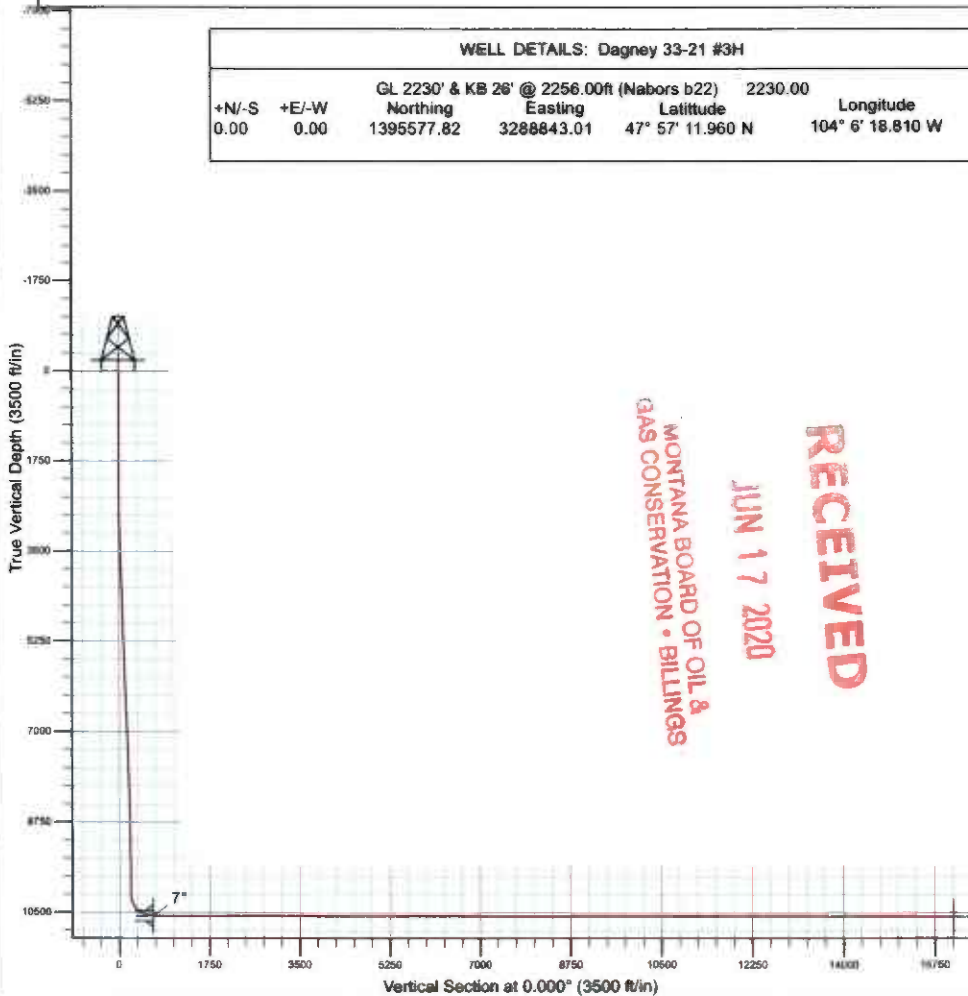
Azimuth to True North
 Magnetic North: 8 28"
 Magnetic Field
 Strength: 55561.4nT
 Dip Angle: 72.50°
 Date: 3/24/2020
 Model: HDGM_FILE

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
2500.00	0.00	0.000	2500.00	0.00	0.00	0.00	0.00	0.00
2988.11	4.88	64.858	2987.52	8.83	18.81	1.00	64.86	8.83
8497.57	4.88	64.858	8477.00	208.00	443.19	0.00	0.00	208.00
8985.68	0.00	0.000	8964.52	216.83	462.00	1.00	180.00	216.83
10147.42	0.00	0.000	10126.26	216.83	462.00	0.00	0.00	216.83
10839.16	89.93	360.000	10567.00	657.00	462.00	13.00	360.00	657.00
26293.18	89.93	360.000	10587.00	16111.00	482.00	0.00	0.00	16111.00

WELL DETAILS: Dagney 33-21 #3H

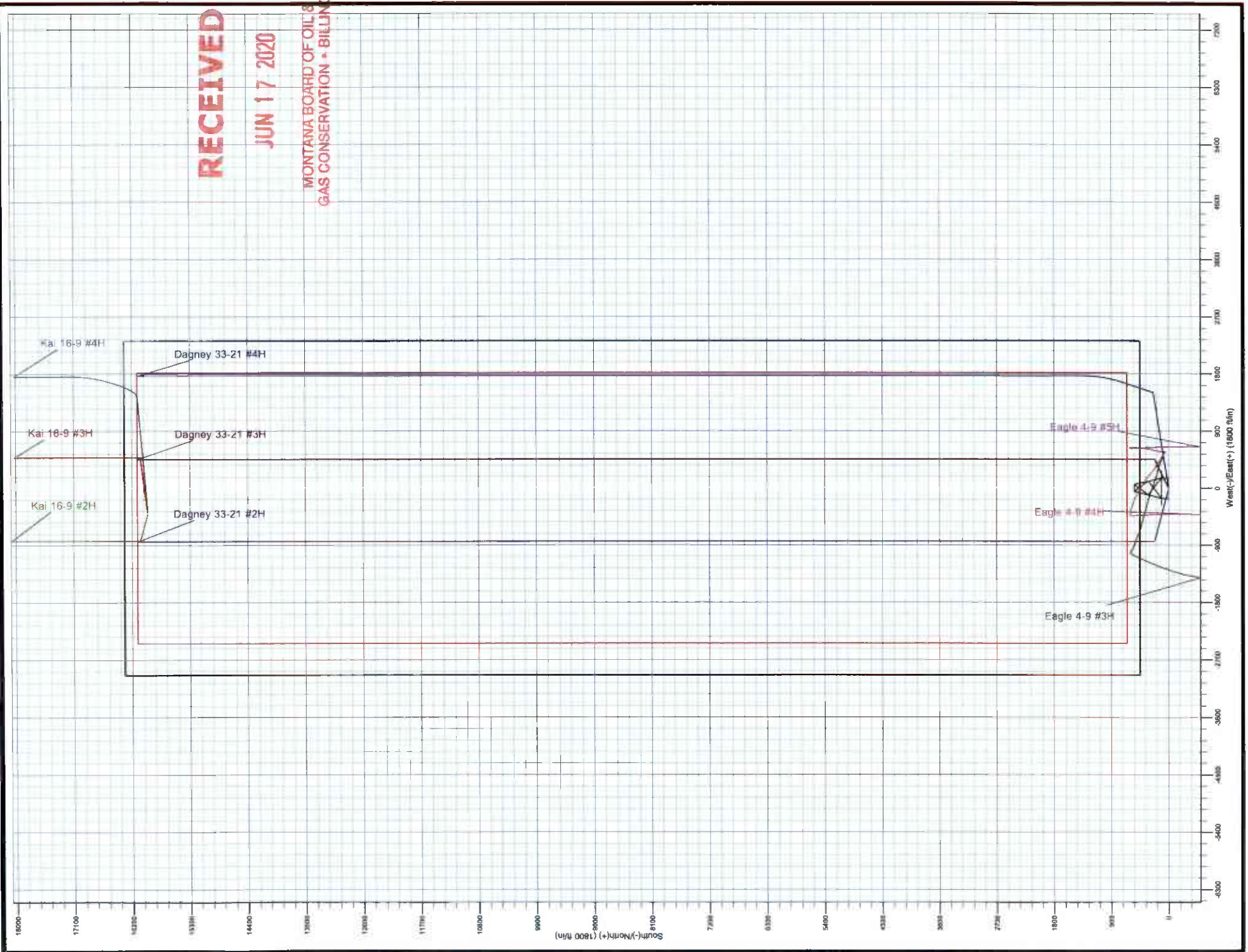
		GL 2230' & KB 26' @ 2256.00ft (Nabors b22)		2230.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1395577.82	3288843.01	47° 57' 11.960 N	104° 6' 18.810 W	



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Kraken Oil & Gas, LLC

Richland County, MT
Dagney South Pad
Dagney 33-21 #3H

OH

Plan: Plan 1

Standard Planning Report

24 March, 2020

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GAS CONSERVATION • BILLINGS**



www.scientificdrilling.com

Scientific Drilling, Intl
Planning Report

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Project	Richland County, MT		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Montana		

Site	Dagney South Pad, Site Center : Dagney 33-21 #2H				
Site Position:		Northing:	1,395,575.58 usft	Latitude:	47° 57' 11.960 N
From:	Lat/Long	Easting:	3,288,810.43 usft	Longitude:	104° 6' 19.290 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	3.95 °

Well	Dagney 33-21 #3H, 452' FNL 2322' FEL Sec 4 T25N R59E					
Well Position	+N/-S	-0.01 ft	Northing:	1,395,577.82 usft	Latitude:	47° 57' 11.960 N
	+E/-W	32.66 ft	Easting:	3,288,843.01 usft	Longitude:	104° 6' 18.810 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	2,230.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	3/24/2020	8.28	72.50	55,561.40000000

Design	Plan 1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	0.00	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,988.11	4.88	64.858	2,987.52	8.83	18.81	1.00	1.00	0.00	64.86	
8,497.57	4.88	64.858	8,477.00	208.00	443.19	0.00	0.00	0.00	0.00	
8,985.68	0.00	0.000	8,964.52	216.83	462.00	1.00	-1.00	0.00	180.00	
10,147.42	0.00	0.000	10,126.28	216.83	462.00	0.00	0.00	0.00	0.00	
10,839.18	89.93	360.000	10,567.00	657.00	482.00	13.00	13.00	0.00	360.00	
26,293.18	89.93	360.000	10,587.00	16,111.00	462.00	0.00	0.00	0.00	0.00	Dagney 33-21 #3H P1

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MONTANA BOARD OF OIL & GAS CONSERVATION • BILLINGS

Scientific Drilling, Intl
Planning Report

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.000	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.000	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.000	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.000	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.000	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.000	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.000	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.000	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.000	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
2,600.00	1.00	64.858	2,599.99	0.37	0.79	0.37	1.00	1.00	0.00
2,700.00	2.00	64.858	2,699.96	1.48	3.16	1.48	1.00	1.00	0.00
2,800.00	3.00	64.858	2,799.86	3.34	7.11	3.34	1.00	1.00	0.00
2,900.00	4.00	64.858	2,899.68	5.93	12.63	5.93	1.00	1.00	0.00
2,988.11	4.88	64.858	2,987.52	8.83	18.81	8.83	1.00	1.00	0.00
Start 5509.45 hold at 2988.11 MD									
3,000.00	4.88	64.858	2,999.37	9.26	19.73	9.26	0.00	0.00	0.00
3,100.00	4.88	64.858	3,099.00	12.87	27.43	12.87	0.00	0.00	0.00
3,200.00	4.88	64.858	3,198.64	16.49	35.13	16.49	0.00	0.00	0.00
3,300.00	4.88	64.858	3,298.28	20.10	42.83	20.10	0.00	0.00	0.00
3,400.00	4.88	64.858	3,397.92	23.72	50.54	23.72	0.00	0.00	0.00
3,500.00	4.88	64.858	3,497.55	27.33	58.24	27.33	0.00	0.00	0.00
3,600.00	4.88	64.858	3,597.19	30.95	65.94	30.95	0.00	0.00	0.00
3,700.00	4.88	64.858	3,696.83	34.56	73.65	34.56	0.00	0.00	0.00
3,800.00	4.88	64.858	3,796.47	38.18	81.35	38.18	0.00	0.00	0.00
3,900.00	4.88	64.858	3,896.10	41.79	89.05	41.79	0.00	0.00	0.00
4,000.00	4.88	64.858	3,995.74	45.41	96.75	45.41	0.00	0.00	0.00
4,100.00	4.88	64.858	4,095.38	49.02	104.46	49.02	0.00	0.00	0.00
4,200.00	4.88	64.858	4,195.01	52.84	112.16	52.84	0.00	0.00	0.00
4,300.00	4.88	64.858	4,294.65	56.25	119.86	56.25	0.00	0.00	0.00
4,400.00	4.88	64.858	4,394.29	59.87	127.56	59.87	0.00	0.00	0.00
4,500.00	4.88	64.858	4,493.93	63.48	135.27	63.48	0.00	0.00	0.00
4,600.00	4.88	64.858	4,593.58	67.10	142.97	67.10	0.00	0.00	0.00
4,700.00	4.88	64.858	4,693.20	70.72	150.67	70.72	0.00	0.00	0.00
4,732.92	4.88	64.858	4,726.00	71.91	153.21	71.91	0.00	0.00	0.00
Greenhorn									

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Scientific Drilling, Intl
Planning Report

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.00	4.88	64.858	4,792.84	74.33	158.38	74.33	0.00	0.00	0.00
4,900.00	4.88	64.858	4,892.48	77.95	166.08	77.95	0.00	0.00	0.00
5,000.00	4.88	64.858	4,992.11	81.56	173.78	81.56	0.00	0.00	0.00
5,100.00	4.88	64.858	5,091.75	85.18	181.48	85.18	0.00	0.00	0.00
5,138.39	4.88	64.858	5,130.00	86.56	184.44	86.56	0.00	0.00	0.00
Mowry (Top Dakota)									
5,200.00	4.88	64.858	5,191.39	88.79	189.19	88.79	0.00	0.00	0.00
5,300.00	4.88	64.858	5,291.03	92.41	196.89	92.41	0.00	0.00	0.00
5,319.04	4.88	64.858	5,310.00	93.09	198.36	93.09	0.00	0.00	0.00
Newcastle									
5,400.00	4.88	64.858	5,390.66	96.02	204.59	96.02	0.00	0.00	0.00
5,500.00	4.88	64.858	5,490.30	99.64	212.29	99.64	0.00	0.00	0.00
5,558.91	4.88	64.858	5,549.00	101.77	216.83	101.77	0.00	0.00	0.00
Inyan Kara									
5,600.00	4.88	64.858	5,589.94	103.25	220.00	103.25	0.00	0.00	0.00
5,700.00	4.88	64.858	5,689.57	106.87	227.70	106.87	0.00	0.00	0.00
5,800.00	4.88	64.858	5,789.21	110.48	235.40	110.48	0.00	0.00	0.00
5,900.00	4.88	64.858	5,888.85	114.10	243.11	114.10	0.00	0.00	0.00
6,000.00	4.88	64.858	5,988.49	117.71	250.81	117.71	0.00	0.00	0.00
6,082.81	4.88	64.858	6,071.00	120.71	257.19	120.71	0.00	0.00	0.00
Swift									
6,100.00	4.88	64.858	6,088.12	121.33	258.51	121.33	0.00	0.00	0.00
6,200.00	4.88	64.858	6,187.76	124.94	266.21	124.94	0.00	0.00	0.00
6,300.00	4.88	64.858	6,287.40	128.56	273.92	128.56	0.00	0.00	0.00
6,400.00	4.88	64.858	6,387.04	132.17	281.62	132.17	0.00	0.00	0.00
6,500.00	4.88	64.858	6,486.67	135.79	289.32	135.79	0.00	0.00	0.00
6,600.00	4.88	64.858	6,586.31	139.40	297.02	139.40	0.00	0.00	0.00
6,700.00	4.88	64.858	6,685.95	143.02	304.73	143.02	0.00	0.00	0.00
6,800.00	4.88	64.858	6,785.59	146.63	312.43	146.63	0.00	0.00	0.00
6,900.00	4.88	64.858	6,885.22	150.25	320.13	150.25	0.00	0.00	0.00
7,000.00	4.88	64.858	6,984.86	153.86	327.84	153.86	0.00	0.00	0.00
7,100.00	4.88	64.858	7,084.50	157.48	335.54	157.48	0.00	0.00	0.00
7,133.62	4.88	64.858	7,118.00	158.69	338.13	158.69	0.00	0.00	0.00
Spearfish									
7,200.00	4.88	64.858	7,184.13	161.09	343.24	161.09	0.00	0.00	0.00
7,300.00	4.88	64.858	7,283.77	164.71	350.94	164.71	0.00	0.00	0.00
7,400.00	4.88	64.858	7,383.41	168.32	358.65	168.32	0.00	0.00	0.00
7,500.00	4.88	64.858	7,483.05	171.94	366.35	171.94	0.00	0.00	0.00
7,600.00	4.88	64.858	7,582.68	175.55	374.05	175.55	0.00	0.00	0.00
7,627.42	4.88	64.858	7,610.00	176.54	376.16	176.54	0.00	0.00	0.00
Amsden									
7,700.00	4.88	64.858	7,682.32	179.17	381.75	179.17	0.00	0.00	0.00
7,800.00	4.88	64.858	7,781.96	182.78	389.46	182.78	0.00	0.00	0.00
7,824.13	4.88	64.858	7,806.00	183.66	391.32	183.66	0.00	0.00	0.00
Tyler									
7,900.00	4.88	64.858	7,881.60	186.40	397.16	186.40	0.00	0.00	0.00
8,000.00	4.88	64.858	7,981.23	190.01	404.86	190.01	0.00	0.00	0.00
8,100.00	4.88	64.858	8,080.87	193.63	412.57	193.63	0.00	0.00	0.00
8,200.00	4.88	64.858	8,180.51	197.24	420.27	197.24	0.00	0.00	0.00
8,300.00	4.88	64.858	8,280.15	200.86	427.97	200.86	0.00	0.00	0.00
8,342.01	4.88	64.858	8,322.00	202.38	431.21	202.38	0.00	0.00	0.00
Kibbey Lime									
8,400.00	4.88	64.858	8,379.78	204.47	435.67	204.47	0.00	0.00	0.00

Scientific Drilling, Intl
Planning Report

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,497.57	4.88	64.858	8,477.00	208.00	443.19	208.00	0.00	0.00	0.00
Start Drop -1.00 - Madison (Charles)									
8,500.00	4.86	64.858	8,479.42	208.09	443.38	208.09	1.00	-1.00	0.00
8,600.00	3.86	64.858	8,579.13	211.32	450.25	211.32	1.00	-1.00	0.00
8,700.00	2.86	64.858	8,678.96	213.80	455.55	213.80	1.00	-1.00	0.00
8,800.00	1.86	64.858	8,778.87	215.55	459.28	215.55	1.00	-1.00	0.00
8,900.00	0.86	64.858	8,878.84	216.56	461.42	216.56	1.00	-1.00	0.00
8,985.68	0.00	0.000	8,964.52	216.83	462.00	216.83	1.00	-1.00	0.00
Start 1161.74 hold at 8985.68 MD									
9,000.00	0.00	0.000	8,978.84	216.83	462.00	216.83	0.00	0.00	0.00
9,024.16	0.00	0.000	9,003.00	216.83	462.00	216.83	0.00	0.00	0.00
Ratcliffe									
9,073.16	0.00	0.000	9,052.00	216.83	462.00	216.83	0.00	0.00	0.00
Base of Last Salt									
9,100.00	0.00	0.000	9,078.84	216.83	462.00	216.83	0.00	0.00	0.00
9,200.00	0.00	0.000	9,178.84	216.83	462.00	216.83	0.00	0.00	0.00
9,300.00	0.00	0.000	9,278.84	216.83	462.00	216.83	0.00	0.00	0.00
9,334.16	0.00	0.000	9,313.00	216.83	462.00	216.83	0.00	0.00	0.00
Mission Canyon									
9,400.00	0.00	0.000	9,378.84	216.83	462.00	216.83	0.00	0.00	0.00
9,500.00	0.00	0.000	9,478.84	216.83	462.00	216.83	0.00	0.00	0.00
9,600.00	0.00	0.000	9,578.84	216.83	462.00	216.83	0.00	0.00	0.00
9,700.00	0.00	0.000	9,678.84	216.83	462.00	216.83	0.00	0.00	0.00
9,787.16	0.00	0.000	9,766.00	216.83	462.00	216.83	0.00	0.00	0.00
Lodgepole									
9,800.00	0.00	0.000	9,778.84	216.83	462.00	216.83	0.00	0.00	0.00
9,900.00	0.00	0.000	9,878.84	216.83	462.00	216.83	0.00	0.00	0.00
10,000.00	0.00	0.000	9,978.84	216.83	462.00	216.83	0.00	0.00	0.00
10,100.00	0.00	0.000	10,078.84	216.83	462.00	216.83	0.00	0.00	0.00
10,147.42	0.00	0.000	10,126.26	216.83	462.00	216.83	0.00	0.00	0.00
Start DLS 13.00 TFO 360.00									
10,200.00	6.84	360.000	10,178.71	219.96	462.00	219.96	13.00	13.00	0.00
10,300.00	19.84	360.000	10,275.81	242.98	462.00	242.98	13.00	13.00	0.00
10,400.00	32.84	360.000	10,365.24	287.25	462.00	287.25	13.00	13.00	0.00
10,500.00	45.84	360.000	10,442.42	350.49	462.00	350.49	13.00	13.00	0.00
10,600.00	58.84	360.000	10,503.39	429.49	462.00	429.49	13.00	13.00	0.00
10,662.91	67.01	360.000	10,532.00	485.45	462.00	485.45	13.00	13.00	0.00
Upper Bakken Shale									
10,696.73	71.41	360.000	10,544.00	517.06	462.00	517.06	13.00	13.00	0.00
Top Middle Bakken									
10,700.00	71.84	360.000	10,545.03	520.17	462.00	520.17	13.00	13.00	0.00
10,745.68	77.77	360.000	10,557.00	564.23	462.00	564.23	13.00	13.00	0.00
Middle Bakken Target									
10,800.00	84.84	360.000	10,565.21	617.89	462.00	617.89	13.00	13.00	0.00
10,839.16	89.93	360.000	10,567.00	657.00	462.00	657.00	13.00	13.00	0.00
Start 15454.02 hold at 10839.16 MD - 7"									
10,900.00	89.93	360.000	10,567.08	717.84	462.00	717.84	0.00	0.00	0.00
11,000.00	89.93	360.000	10,567.20	817.84	462.00	817.84	0.00	0.00	0.00
11,100.00	89.93	360.000	10,567.33	917.84	462.00	917.84	0.00	0.00	0.00
11,200.00	89.93	360.000	10,567.46	1,017.84	462.00	1,017.84	0.00	0.00	0.00
11,300.00	89.93	360.000	10,567.59	1,117.84	462.00	1,117.84	0.00	0.00	0.00
11,400.00	89.93	360.000	10,567.72	1,217.84	462.00	1,217.84	0.00	0.00	0.00
11,500.00	89.93	360.000	10,567.85	1,317.84	462.00	1,317.84	0.00	0.00	0.00

Scientific Drilling, Intl
Planning Report

JUN 17 2020

MONTANA BOARD OF OIL &
GAS CONSERVATION - BILLINGS

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,600.00	89.93	360.000	10,567.98	1,417.84	462.00	1,417.84	0.00	0.00	0.00
11,700.00	89.93	360.000	10,568.11	1,517.84	462.00	1,517.84	0.00	0.00	0.00
11,800.00	89.93	360.000	10,568.24	1,617.84	462.00	1,617.84	0.00	0.00	0.00
11,900.00	89.93	360.000	10,568.37	1,717.84	462.00	1,717.84	0.00	0.00	0.00
12,000.00	89.93	360.000	10,568.50	1,817.84	462.00	1,817.84	0.00	0.00	0.00
12,100.00	89.93	360.000	10,568.63	1,917.84	462.00	1,917.84	0.00	0.00	0.00
12,200.00	89.93	360.000	10,568.76	2,017.84	462.00	2,017.84	0.00	0.00	0.00
12,300.00	89.93	360.000	10,568.89	2,117.84	462.00	2,117.84	0.00	0.00	0.00
12,400.00	89.93	360.000	10,569.02	2,217.84	462.00	2,217.84	0.00	0.00	0.00
12,500.00	89.93	360.000	10,569.15	2,317.84	462.00	2,317.84	0.00	0.00	0.00
12,600.00	89.93	360.000	10,569.28	2,417.84	462.00	2,417.84	0.00	0.00	0.00
12,700.00	89.93	360.000	10,569.41	2,517.84	462.00	2,517.84	0.00	0.00	0.00
12,800.00	89.93	360.000	10,569.53	2,617.84	462.00	2,617.84	0.00	0.00	0.00
12,900.00	89.93	360.000	10,569.66	2,717.84	462.00	2,717.84	0.00	0.00	0.00
13,000.00	89.93	360.000	10,569.79	2,817.84	462.00	2,817.84	0.00	0.00	0.00
13,100.00	89.93	360.000	10,569.92	2,917.84	462.00	2,917.84	0.00	0.00	0.00
13,159.63	89.93	360.000	10,570.00	2,977.46	462.00	2,977.46	0.00	0.00	0.00
Base Middle Bakken									
13,200.00	89.93	360.000	10,570.05	3,017.84	462.00	3,017.84	0.00	0.00	0.00
13,300.00	89.93	360.000	10,570.18	3,117.84	462.00	3,117.84	0.00	0.00	0.00
13,400.00	89.93	360.000	10,570.31	3,217.84	462.00	3,217.84	0.00	0.00	0.00
13,500.00	89.93	360.000	10,570.44	3,317.84	462.00	3,317.84	0.00	0.00	0.00
13,600.00	89.93	360.000	10,570.57	3,417.84	462.00	3,417.84	0.00	0.00	0.00
13,700.00	89.93	360.000	10,570.70	3,517.84	462.00	3,517.84	0.00	0.00	0.00
13,800.00	89.93	360.000	10,570.83	3,617.84	462.00	3,617.84	0.00	0.00	0.00
13,900.00	89.93	360.000	10,570.96	3,717.84	462.00	3,717.84	0.00	0.00	0.00
14,000.00	89.93	360.000	10,571.09	3,817.84	462.00	3,817.84	0.00	0.00	0.00
14,100.00	89.93	360.000	10,571.22	3,917.84	462.00	3,917.84	0.00	0.00	0.00
14,200.00	89.93	360.000	10,571.35	4,017.84	462.00	4,017.84	0.00	0.00	0.00
14,300.00	89.93	360.000	10,571.48	4,117.83	462.00	4,117.83	0.00	0.00	0.00
14,400.00	89.93	360.000	10,571.61	4,217.83	462.00	4,217.83	0.00	0.00	0.00
14,500.00	89.93	360.000	10,571.74	4,317.83	462.00	4,317.83	0.00	0.00	0.00
14,600.00	89.93	360.000	10,571.86	4,417.83	462.00	4,417.83	0.00	0.00	0.00
14,700.00	89.93	360.000	10,571.99	4,517.83	462.00	4,517.83	0.00	0.00	0.00
14,800.00	89.93	360.000	10,572.12	4,617.83	462.00	4,617.83	0.00	0.00	0.00
14,900.00	89.93	360.000	10,572.25	4,717.83	462.00	4,717.83	0.00	0.00	0.00
15,000.00	89.93	360.000	10,572.38	4,817.83	462.00	4,817.83	0.00	0.00	0.00
15,100.00	89.93	360.000	10,572.51	4,917.83	462.00	4,917.83	0.00	0.00	0.00
15,200.00	89.93	360.000	10,572.64	5,017.83	462.00	5,017.83	0.00	0.00	0.00
15,300.00	89.93	360.000	10,572.77	5,117.83	462.00	5,117.83	0.00	0.00	0.00
15,400.00	89.93	360.000	10,572.90	5,217.83	462.00	5,217.83	0.00	0.00	0.00
15,500.00	89.93	360.000	10,573.03	5,317.83	462.00	5,317.83	0.00	0.00	0.00
15,600.00	89.93	360.000	10,573.16	5,417.83	462.00	5,417.83	0.00	0.00	0.00
15,700.00	89.93	360.000	10,573.29	5,517.83	462.00	5,517.83	0.00	0.00	0.00
15,800.00	89.93	360.000	10,573.42	5,617.83	462.00	5,617.83	0.00	0.00	0.00
15,900.00	89.93	360.000	10,573.55	5,717.83	462.00	5,717.83	0.00	0.00	0.00
16,000.00	89.93	360.000	10,573.68	5,817.83	462.00	5,817.83	0.00	0.00	0.00
16,100.00	89.93	360.000	10,573.81	5,917.83	462.00	5,917.83	0.00	0.00	0.00
16,200.00	89.93	360.000	10,573.94	6,017.83	462.00	6,017.83	0.00	0.00	0.00
16,300.00	89.93	360.000	10,574.07	6,117.83	462.00	6,117.83	0.00	0.00	0.00
16,400.00	89.93	360.000	10,574.19	6,217.83	462.00	6,217.83	0.00	0.00	0.00
16,500.00	89.93	360.000	10,574.32	6,317.83	462.00	6,317.83	0.00	0.00	0.00
16,600.00	89.93	360.000	10,574.45	6,417.83	462.00	6,417.83	0.00	0.00	0.00
16,700.00	89.93	360.000	10,574.58	6,517.83	462.00	6,517.83	0.00	0.00	0.00

Scientific Drilling, Intl
Planning Report

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,800.00	89.93	360.000	10,574.71	6,617.83	462.00	6,617.83	0.00	0.00	0.00
16,900.00	89.93	360.000	10,574.84	6,717.83	462.00	6,717.83	0.00	0.00	0.00
17,000.00	89.93	360.000	10,574.97	6,817.83	462.00	6,817.83	0.00	0.00	0.00
17,100.00	89.93	360.000	10,575.10	6,917.83	462.00	6,917.83	0.00	0.00	0.00
17,200.00	89.93	360.000	10,575.23	7,017.83	462.00	7,017.83	0.00	0.00	0.00
17,300.00	89.93	360.000	10,575.36	7,117.83	462.00	7,117.83	0.00	0.00	0.00
17,400.00	89.93	360.000	10,575.49	7,217.83	462.00	7,217.83	0.00	0.00	0.00
17,500.00	89.93	360.000	10,575.62	7,317.83	462.00	7,317.83	0.00	0.00	0.00
17,600.00	89.93	360.000	10,575.75	7,417.83	462.00	7,417.83	0.00	0.00	0.00
17,700.00	89.93	360.000	10,575.88	7,517.83	462.00	7,517.83	0.00	0.00	0.00
17,800.00	89.93	360.000	10,576.01	7,617.83	462.00	7,617.83	0.00	0.00	0.00
17,900.00	89.93	360.000	10,576.14	7,717.83	462.00	7,717.83	0.00	0.00	0.00
18,000.00	89.93	360.000	10,576.27	7,817.83	462.00	7,817.83	0.00	0.00	0.00
18,100.00	89.93	360.000	10,576.40	7,917.83	462.00	7,917.83	0.00	0.00	0.00
18,200.00	89.93	360.000	10,576.52	8,017.83	462.00	8,017.83	0.00	0.00	0.00
18,300.00	89.93	360.000	10,576.65	8,117.83	462.00	8,117.83	0.00	0.00	0.00
18,400.00	89.93	360.000	10,576.78	8,217.83	462.00	8,217.83	0.00	0.00	0.00
18,500.00	89.93	360.000	10,576.91	8,317.83	462.00	8,317.83	0.00	0.00	0.00
18,600.00	89.93	360.000	10,577.04	8,417.83	462.00	8,417.83	0.00	0.00	0.00
18,700.00	89.93	360.000	10,577.17	8,517.83	462.00	8,517.83	0.00	0.00	0.00
18,800.00	89.93	360.000	10,577.30	8,617.83	462.00	8,617.83	0.00	0.00	0.00
18,900.00	89.93	360.000	10,577.43	8,717.83	462.00	8,717.83	0.00	0.00	0.00
19,000.00	89.93	360.000	10,577.56	8,817.83	462.00	8,817.83	0.00	0.00	0.00
19,100.00	89.93	360.000	10,577.69	8,917.83	462.00	8,917.83	0.00	0.00	0.00
19,200.00	89.93	360.000	10,577.82	9,017.83	462.00	9,017.83	0.00	0.00	0.00
19,300.00	89.93	360.000	10,577.95	9,117.83	462.00	9,117.83	0.00	0.00	0.00
19,400.00	89.93	360.000	10,578.08	9,217.83	462.00	9,217.83	0.00	0.00	0.00
19,500.00	89.93	360.000	10,578.21	9,317.83	462.00	9,317.83	0.00	0.00	0.00
19,600.00	89.93	360.000	10,578.34	9,417.83	462.00	9,417.83	0.00	0.00	0.00
19,700.00	89.93	360.000	10,578.47	9,517.83	462.00	9,517.83	0.00	0.00	0.00
19,800.00	89.93	360.000	10,578.60	9,617.83	462.00	9,617.83	0.00	0.00	0.00
19,900.00	89.93	360.000	10,578.72	9,717.83	462.00	9,717.83	0.00	0.00	0.00
20,000.00	89.93	360.000	10,578.85	9,817.83	462.00	9,817.83	0.00	0.00	0.00
20,100.00	89.93	360.000	10,578.98	9,917.83	462.00	9,917.83	0.00	0.00	0.00
20,200.00	89.93	360.000	10,579.11	10,017.83	462.00	10,017.83	0.00	0.00	0.00
20,300.00	89.93	360.000	10,579.24	10,117.83	462.00	10,117.83	0.00	0.00	0.00
20,400.00	89.93	360.000	10,579.37	10,217.83	462.00	10,217.83	0.00	0.00	0.00
20,500.00	89.93	360.000	10,579.50	10,317.83	462.00	10,317.83	0.00	0.00	0.00
20,600.00	89.93	360.000	10,579.63	10,417.83	462.00	10,417.83	0.00	0.00	0.00
20,700.00	89.93	360.000	10,579.76	10,517.83	462.00	10,517.83	0.00	0.00	0.00
20,800.00	89.93	360.000	10,579.89	10,617.83	462.00	10,617.83	0.00	0.00	0.00
20,900.00	89.93	360.000	10,580.02	10,717.83	462.00	10,717.83	0.00	0.00	0.00
21,000.00	89.93	360.000	10,580.15	10,817.83	462.00	10,817.83	0.00	0.00	0.00
21,100.00	89.93	360.000	10,580.28	10,917.83	462.00	10,917.83	0.00	0.00	0.00
21,200.00	89.93	360.000	10,580.41	11,017.83	462.00	11,017.83	0.00	0.00	0.00
21,300.00	89.93	360.000	10,580.54	11,117.83	462.00	11,117.83	0.00	0.00	0.00
21,400.00	89.93	360.000	10,580.67	11,217.83	462.00	11,217.83	0.00	0.00	0.00
21,500.00	89.93	360.000	10,580.80	11,317.83	462.00	11,317.83	0.00	0.00	0.00
21,600.00	89.93	360.000	10,580.93	11,417.83	462.00	11,417.83	0.00	0.00	0.00
21,700.00	89.93	360.000	10,581.05	11,517.83	462.00	11,517.83	0.00	0.00	0.00
21,800.00	89.93	360.000	10,581.18	11,617.83	462.00	11,617.83	0.00	0.00	0.00
21,900.00	89.93	360.000	10,581.31	11,717.83	462.00	11,717.83	0.00	0.00	0.00
22,000.00	89.93	360.000	10,581.44	11,817.83	462.00	11,817.83	0.00	0.00	0.00
22,100.00	89.93	360.000	10,581.57	11,917.83	462.00	11,917.83	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
22,200.00	89.93	360.000	10,581.70	12,017.83	462.00	12,017.83	0.00	0.00	0.00
22,300.00	89.93	360.000	10,581.83	12,117.83	462.00	12,117.83	0.00	0.00	0.00
22,400.00	89.93	360.000	10,581.96	12,217.83	462.00	12,217.83	0.00	0.00	0.00
22,500.00	89.93	360.000	10,582.09	12,317.83	462.00	12,317.83	0.00	0.00	0.00
22,600.00	89.93	360.000	10,582.22	12,417.83	462.00	12,417.83	0.00	0.00	0.00
22,700.00	89.93	360.000	10,582.35	12,517.83	462.00	12,517.83	0.00	0.00	0.00
22,800.00	89.93	360.000	10,582.48	12,617.83	462.00	12,617.83	0.00	0.00	0.00
22,900.00	89.93	360.000	10,582.61	12,717.83	462.00	12,717.83	0.00	0.00	0.00
23,000.00	89.93	360.000	10,582.74	12,817.83	462.00	12,817.83	0.00	0.00	0.00
23,100.00	89.93	360.000	10,582.87	12,917.83	462.00	12,917.83	0.00	0.00	0.00
23,200.00	89.93	360.000	10,583.00	13,017.83	462.00	13,017.83	0.00	0.00	0.00
23,300.00	89.93	360.000	10,583.13	13,117.83	462.00	13,117.83	0.00	0.00	0.00
23,400.00	89.93	360.000	10,583.26	13,217.83	462.00	13,217.83	0.00	0.00	0.00
23,500.00	89.93	360.000	10,583.38	13,317.83	462.00	13,317.83	0.00	0.00	0.00
23,600.00	89.93	360.000	10,583.51	13,417.83	462.00	13,417.83	0.00	0.00	0.00
23,700.00	89.93	360.000	10,583.64	13,517.83	462.00	13,517.83	0.00	0.00	0.00
23,800.00	89.93	360.000	10,583.77	13,617.83	462.00	13,617.83	0.00	0.00	0.00
23,900.00	89.93	360.000	10,583.90	13,717.83	462.00	13,717.83	0.00	0.00	0.00
24,000.00	89.93	360.000	10,584.03	13,817.83	462.00	13,817.83	0.00	0.00	0.00
24,100.00	89.93	360.000	10,584.16	13,917.83	462.00	13,917.83	0.00	0.00	0.00
24,200.00	89.93	360.000	10,584.29	14,017.83	462.00	14,017.83	0.00	0.00	0.00
24,300.00	89.93	360.000	10,584.42	14,117.83	462.00	14,117.83	0.00	0.00	0.00
24,400.00	89.93	360.000	10,584.55	14,217.83	462.00	14,217.83	0.00	0.00	0.00
24,500.00	89.93	360.000	10,584.68	14,317.83	462.00	14,317.83	0.00	0.00	0.00
24,600.00	89.93	360.000	10,584.81	14,417.83	462.00	14,417.83	0.00	0.00	0.00
24,700.00	89.93	360.000	10,584.94	14,517.83	462.00	14,517.83	0.00	0.00	0.00
24,800.00	89.93	360.000	10,585.07	14,617.83	462.00	14,617.83	0.00	0.00	0.00
24,900.00	89.93	360.000	10,585.20	14,717.83	462.00	14,717.83	0.00	0.00	0.00
25,000.00	89.93	360.000	10,585.33	14,817.83	462.00	14,817.83	0.00	0.00	0.00
25,100.00	89.93	360.000	10,585.46	14,917.83	462.00	14,917.83	0.00	0.00	0.00
25,200.00	89.93	360.000	10,585.59	15,017.83	462.00	15,017.83	0.00	0.00	0.00
25,300.00	89.93	360.000	10,585.71	15,117.83	462.00	15,117.83	0.00	0.00	0.00
25,400.00	89.93	360.000	10,585.84	15,217.83	462.00	15,217.83	0.00	0.00	0.00
25,500.00	89.93	360.000	10,585.97	15,317.83	462.00	15,317.83	0.00	0.00	0.00
25,600.00	89.93	360.000	10,586.10	15,417.83	462.00	15,417.83	0.00	0.00	0.00
25,700.00	89.93	360.000	10,586.23	15,517.83	462.00	15,517.83	0.00	0.00	0.00
25,800.00	89.93	360.000	10,586.36	15,617.83	462.00	15,617.83	0.00	0.00	0.00
25,900.00	89.93	360.000	10,586.49	15,717.83	462.00	15,717.83	0.00	0.00	0.00
26,000.00	89.93	360.000	10,586.62	15,817.83	462.00	15,817.83	0.00	0.00	0.00
26,100.00	89.93	360.000	10,586.75	15,917.83	462.00	15,917.83	0.00	0.00	0.00
26,200.00	89.93	360.000	10,586.88	16,017.83	462.00	16,017.83	0.00	0.00	0.00
26,293.18	89.93	360.000	10,587.00	16,111.00	462.00	16,111.00	0.00	0.00	0.00
TD at 26293.18									

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MONTANA BOARD OF OIL &
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Scientific Drilling, Intl
Planning Report

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Dagney 33-21 #3H SL: 4 - plan hits target center - Point	0.00	0.000	0.00	0.00	0.00	1,395,577.83	3,288,843.01	47° 57' 11.960 N	104° 6' 18.810 W
Dagney 33-21 #3H LP: 2 - plan hits target center - Point	0.00	0.000	10,567.00	657.00	462.00	1,396,265.06	3,289,258.70	47° 57' 18.447 N	104° 6' 12.020 W
Dagney 33-21 #3H PBH - plan hits target center - Point	0.00	0.000	10,587.00	16,111.00	462.00	1,411,682.39	3,288,195.13	47° 59' 51.026 N	104° 6' 12.014 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
10,839.16	10,567.00	7"	7.000	8.750	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,732.92	4,726.00	Greenhorn				
5,138.39	5,130.00	Mowry (Top Dakota)				
5,319.04	5,310.00	Newcastle				
5,558.91	5,549.00	Inyan Kara				
6,082.81	6,071.00	Swift				
7,133.62	7,118.00	Spearfish				
7,627.42	7,610.00	Amsden				
7,824.13	7,806.00	Tyler				
8,342.01	8,322.00	Kibbey Lime				
8,497.57	8,477.00	Madison (Charles)				
9,024.16	9,003.00	Ratcliffe				
9,073.16	9,052.00	Base of Last Salt				
9,334.16	9,313.00	Mission Canyon				
9,787.16	9,766.00	Lodgepole				
10,662.91	10,532.00	Upper Bakken Shale				
10,696.73	10,544.00	Top Middle Bakken				
10,745.68	10,557.00	Middle Bakken Target				
13,159.63	10,570.00	Base Middle Bakken				

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MONTANA BOARD OF OIL &
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Scientific Drilling, Intl

Planning Report

Database:	Casper	Local Co-ordinate Reference:	Well Dagney 33-21 #3H
Company:	Kraken Oil & Gas, LLC	TVD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Project:	Richland County, MT	MD Reference:	GL 2230' & KB 26' @ 2256.00ft (Nabors b22)
Site:	Dagney South Pad	North Reference:	True
Well:	Dagney 33-21 #3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,500.00	2,500.00	0.00	0.00	Start Build 1.00
2,988.11	2,987.52	8.83	18.81	Start 5509.45 hold at 2988.11 MD
8,497.57	8,477.00	208.00	443.19	Start Drop -1.00
8,985.88	8,964.52	216.83	462.00	Start 1161.74 hold at 8985.68 MD
10,147.42	10,126.26	216.83	462.00	Start DLS 13.00 TFO 360.00
10,839.16	10,567.00	857.00	462.00	Start 15454.02 hold at 10839.16 MD
26,293.18	10,587.00	16,111.00	462.00	TD at 26293.18

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JUN 17 2020

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

MONTANA BOARD OF OIL AND GAS ATTACHMENT TO APD "CONDITIONS OF APPROVAL"

A. If gravel, sand or coal is encountered while constructing the cuttings pit the following must be done:

1. Contact BOGC field inspector for recommendations.
2. If rathole and mousehole encounter gravel. Rathole and mousehole must have a steel liner cemented in, notify field inspector.

B. Surface casing must be set at least 50' into the Pierre Shale.

C. 36.22.703 HORIZONTAL WELLS

(5) Within 30 days after completion of a horizontal well, the operator must file with the board a complete and accurate directional survey showing the location, direction, and length of each horizontal drainhole and demonstrating that all drainholes are at locations permitted by this rule or by a board location exception order.

D. 36.22.1005 DRILLING WASTE DISPOSAL AND SURFACE RESTORATION

(1) The operator of a drilling well must contain and dispose of all solid waste and produced fluids that accumulate during drilling operations so as not to degrade surface water, groundwater, or cause harm to soils. Said waste and fluids must be disposed of in accordance with all applicable local, state and federal laws and regulations.

(2) When a salt-based or oil-based drilling fluid is used to drill a well located within a floodplain, as defined by ARM 36.15.101, or in irrigated cropland, drilling waste and produced fluids that accumulate during drilling operations must be disposed of off-site in a manner allowed by local, state, and federal laws and regulations unless an alternative on-site disposal method is approved in writing by the board administrator.

(3) The operator of a drilling well must construct, close, and restore any reserve pits in a manner that will prevent harm to the soil and will not degrade surface waters or groundwater. When a salt-based or oil-based drilling fluid is used, the reserve pit must be lined with a synthetic liner approved by the board administrator.

(4) Within 10 days after the cessation of drilling or completion operations, all hydrocarbons must be removed from earthen pits used in association with drilling or completion operations or such pits must be fenced, screened, and netted. Such pits that contain water with more than 15,000 parts per million total dissolved solids or salt-based drilling fluids must be fenced within 90 days after the cessation of drilling and completion operations.

(5) Earthen pits used in association with drilling and completion operations must not be used for the disposal of any additional fluids or materials after the cessation of drilling and completion operations.

(6) All earthen pits used in association with drilling and completion operations must be closed and the surface restored according to board specifications within one year after the cessation of drilling operations. Upon written application by the operator, an exception to the one-year pit closure requirement may be granted in writing by the board administrator upon a showing that:

(a) no dumping or disposal of waste or fluids in the pit will occur; and

(b) delayed closure of the pit will not present a risk of contamination to soils or water or a hazard to animals or persons.

History: Sec. 82-11-111, MCA; IMP, Sec. 82-11-123 and Sec. 82-11-124, MCA; Eff. 12/31/72; AMD, Eff. 7/5/75; AMD, 1992 MAR p. 654, Eff. 4/1/92

Submit In Quadruplicate To:
MONTANA BOARD OF OIL AND GAS CONSERVATION
2535 ST. JOHNS AVENUE
BILLINGS, MONTANA 59102

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NOV 02 2020

SUNDRY NOTICES AND REPORT OF WELLS

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

Operator Kraken Operating, LLC		Lease Name: Dagney 33-21
Address 9805 Katy Freeway, Ste. 300		Type (Private/State/Federal/Tribal/Allotted): Private
City Houston State TX Zip Code 77024	Well Number: #3H	
Telephone (713) 360-7705 Fax	Unit Agreement Name: Dagney	
Location of well (1/4-1/4 section and footage measurements): LOT2 Sec. 4-T25N-R59E, 452 FNL 2322 FEL	Field Name or Wildcat: Wildcat	
	Township, Range, and Section: 4 25 26N-59E Secs-21, 28 & 23	
API Number: 25 083 23392	Well Type (oil, gas, injection, other): Oil	County: Richland
State 25 County 083 Well 23392		



Indicate below with an X the nature of this notice, report, or other data:

Notice of Intention to Change Plans	<input type="checkbox"/>	Subsequent Report of Mechanical Integrity Test	<input type="checkbox"/>
Notice of Intention to Run Mechanical Integrity Test	<input type="checkbox"/>	Subsequent Report of Stimulation or Treatment	<input type="checkbox"/>
Notice of Intention to Stimulate or to Chemically Treat	<input checked="" type="checkbox"/>	Subsequent Report of Perforation or Cementing	<input type="checkbox"/>
Notice of Intention to Perforate or to Cement	<input type="checkbox"/>	Subsequent Report of Well Abandonment	<input type="checkbox"/>
Notice of Intention to Abandon Well	<input type="checkbox"/>	Subsequent Report of Pulled or Altered Casing	<input type="checkbox"/>
Notice of Intention to Pull or Alter Casing	<input type="checkbox"/>	Subsequent Report of Drilling Waste Disposal	<input type="checkbox"/>
Notice of Intention to Change Well Status	<input type="checkbox"/>	Subsequent Report of Production Waste Disposal	<input type="checkbox"/>
Supplemental Well History	<input type="checkbox"/>	Subsequent Report of Change in Well Status	<input type="checkbox"/>
Other (specify) _____	<input type="checkbox"/>	Subsequent Report of Gas Analysis (ARM 36.22.1222)	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>

Describe Proposed or Completed Operations:

Describe planned or completed work in detail. Attach maps, well-bore configuration diagrams, analyses, or other information as necessary. Indicate the intended starting date for proposed operations or the completion date for completed operations.

The Dagney 33-21 #3H well completion operations are anticipated to begin on December 1st, 2020 with flowback anticipated to begin on December 24th, 2020.

BOARD USE ONLY	
Approved NOV 04 2020	Date
	Name
	Title

The undersigned hereby certifies that the information contained on this application is true and correct:

10-29-20 Date **Ray Noah** Signed (Agent)

Ray Noah - Regulatory Team Lead Print Name and Title

Telephone: **830-446-9055**

SUPPLEMENTAL INFORMATION

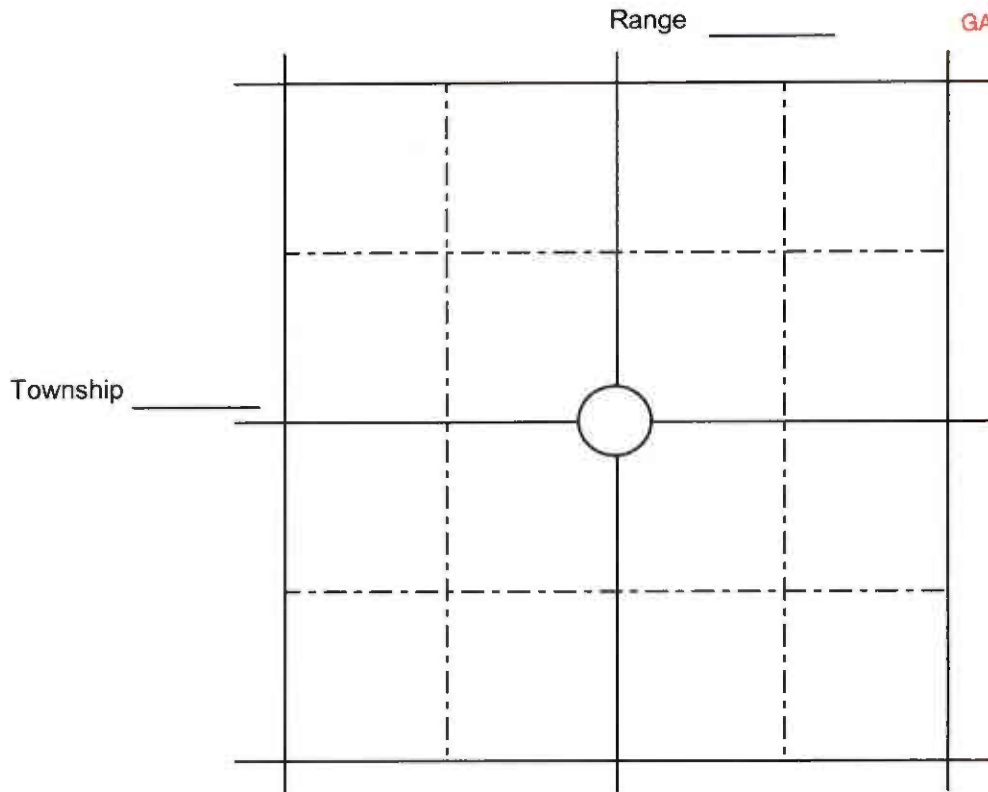
RECEIVED

NOTE: Additional information or attachments may be required by Rule or by special request.

NOV 02 2020

Plot the location of the well or site that is the subject of this notice or report.

**MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS**



BOARD USE ONLY

CONDITIONS OF APPROVAL

The operator must comply with the following condition(s) of approval:

Failure to comply with the conditions of approval may void this permit.

08323392 P-0023336

CHECKLIST ENVIRONMENTAL ASSESMENT

Proposed Action: Approve Drilling Permit (Form 22)

Project/Well Name: Dagney 33-21 3H

Operator: Kraken Operating LLC

Location: NE NW Section 4 T25N R59E

County: Richland MT; **Field (or Wildcat):** Wildcat

Proposed Project Date: 1/01/2021

I. DESCRIPTION OF ACTION

Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 26,293' MD/10,587'TVD.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Richland County Wells).

US Fish and Wildlife, Region 6 website

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Richland County

Montana Natural Heritage Program Website (FWP)

Heritage State Rank= S1, S2, S3, T25N R59E

Montana Cadastral Website

Surface Ownership and surface use Section 4 T25N R59E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Kraken Operating LLC would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: No, 5-10 days.
Unusually deep drilling (high horsepower rig): No

Possible H2S gas production: Potentially in Mississippian formations.
In/near Class I air quality area: No.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – Using triple derrick drilling rig to drill a single lateral horizontal Bakken Formation test, 26,293'MD/10,587'TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil based mud: Will drill with oil based invert drilling fluids for the intermediate casing hole.
Horizontal hole will be drilled with saltwater. Surface casing hole will be drilled with freshwater and freshwater mud system, Rule 36.22.100.1
High water table: No.
Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral drainage about 3/10 of a mile to the northeast.

Water well contamination: None, UINTAH Engineering and Land Surveying lists a 260' water injection well about 1/2 a mile to the west. This proposed oil well will be drilled with freshwater and freshwater mud to 2,165' and steel surface casing will be run and cemented to surface to protect groundwater.

Porous/permeable soils: No, sandy silty clay soils.
Class I stream drainage: Closest Class I stream drainage is the Missouri River, about 3.2 miles to the northeast from this location.
Groundwater vulnerability area: No.

Mitigation:

- Lined reserve pit
- Adequate surface casing
- Berms/dykes, re-routed drainage
- Closed mud system
- Off-site disposal of solids/liquids (in approved facility)

Other:

Comments: Steel surface casing will be run and cemented to surface to protect ground water. (Rule 36.22.1001).

Comments: 2,165' surface casing will be drilled with freshwater, steel casing will be run to 2,165' and cemented back to surface, to protect freshwater zones in adjacent water wells, Rule 36.22.1001. Also, covering Fox Hills aquifer. Adequate surface casing and BOP equipment to prevent problems, (5,000 psi annular and double ram), Rule 36.22.1014.)

5. SOILS/VEGETATION/LAND USE

Vegetation: Grass land.
Stream crossings: None anticipated.

High erosion potential: Possible high erosion potential on medium cut and fill slopes, cut of up to 15.8' and a fill of up to 8.1', required.

Loss of soil productivity: No, location will be restored after drilling if unproductive.

Unusually large wellsite (Describe dimensions): A large well site 450'X465' required for a three well pad.

Damage to improvements: Slight, surface use appears to be mix of cultivated and grass lands.

Conflict with existing land use/values: Slight.

Mitigation

- Avoid improvements (topographic tolerance)
- Exception location requested
- Stockpile topsoil
- Stream Crossing Permit (other agency review)
- Reclaim unused part of wellsite if productive
- Special construction methods to enhance reclamation

Access Road: Access will be over existing county road, #142. A new access of 315' will be built into location.

Drilling fluids/solids: Kraken will not be utilizing a drilling pit.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No occupied structures within a 1/2-mile radius. The town of Fairview, MT is about 7.2 miles to the southeast.

Possibility of H2S: Possibility in Mississippian formations.

Size of rig/length of drilling time: 5-10 days.

Mitigation:

- Proper BOP equipment
- Topographic sound barriers
- H2S contingency and/or evacuation plan
- Special equipment/procedures requirements
- Other:

7. WILDLIFE/RECREATION

Sage Grouse: No.

Proximity to sensitive wildlife areas (DFWP identified): None.

Proximity to recreation sites: None.

Creation of new access to wildlife habitat: No.

Conflict with game range/refuge management: No.

Threatened or endangered Species: Listed threatened or endangered species in Richland County are the Pallid Sturgeon, Interior Least Tern, Whooping Crane, Piping Plover, and the Northern Long-eared Bat. The Montana Natural Heritage Program website lists three (3) species of concern, Whooping Crane, Northern Redbelly Dace, and the Iowa Darter.

Mitigation:

- Avoidance (topographic tolerance/exception)
- Other agency review (DFWP, federal agencies, DNRC Trust Lands)
- Screening/fencing of pits, drillsite
- Other:

Comments: Private cultivated surface lands. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites:

Mitigation

- avoidance (topographic tolerance, location exception)
- other agency review (SHPO, DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC


Substantial effect on tax base

- Create demand for new governmental services
- Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated. I conclude that the approval of the subject Notice of Intent to Drill (does/does not) constitute a major action of state government significantly affecting the quality of the human environment, and (does/does not) require the preparation of an environmental impact statement.

EA Checklist	Name: John Gizicki	Date: 06/18/20
Prepared By:	Title: Compliance Specialist	

APD Review Checklist

Company: Kraken
 Yes No N/A

Lease: Dagney 33-21 Well #: #3H

Location: 25N-59E-4

36.22.601 - Public Notice

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proof of publication of notice in Helena and County of proposed well
-------------------------------------	--------------------------	--------------------------	--

Comment: Helena: 4/26/20, County: 4/26/20

36.22.602 - Surveying

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Includes survey plat certified by registered surveyor with well location and reference to nearest lines
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Topographic map with well location, access route, residences, and water wells within 1/2 mile radius
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sketch of well site with dimensions and orientation, size and location of pits, topsoil stockpile, and estimated cut/fill
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sketch of reserve pits if utilized (top and two side views)

Comment:

36.22.604 - Permit Issuance

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Written demand for hearing has been filed within 10 days following date of publication of notice
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Environmental Assessment done

Comment:

36.22.608 - Well Stimulation Activities

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Processes, anticipated volumes, and types of material planned described
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Comment: Required disclosure with permit

36.22.620 - Notification of Application for Permit to Drill

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proof of notice to owners of occupied structures within 1,320 ft
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Written demand for hearing has been filed within 14 days following date of owner receiving notice

Comment: No occupied structures within 1/4 mile.

36.22.702 - Well Spacing

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location is legal
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Comment: Order 20-2020 authorized overlapping 1920 acres spacing unit. Order 21-20 additional wells. Well maintains setbacks.

36.22.1001 - Casing/Cement

Surface

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Drilled with fresh water mud or air
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cemented back to surface
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Setting depth deep enough to cover all fresh water zones and wells

Intermediate/Production

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cement top adequate
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well construction adequate for proposed/future stimulation/hydraulic fracturing considerations

Comment:

36.22.1005 - Drilling Waste Disposal and Surface Restoration

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Pit Liner Description and specifications
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Plan for treatment and/or disposal of reserve pit fluids and solids after well is drilled

Comment: No pits

36.22.1013 - Well Logs

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request logging waiver
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Comment:

36.22.1014 - Well Control

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rated working pressure of all well control equipment equal or exceeds the max anticipated pressure at surface
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Comment: 5M system

Sage Grouse Habitat

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approval to proceed
--------------------------	--------------------------	-------------------------------------	---------------------

Comment:

Date Permit Approved: 6/18/2020

Page : 1 of 2 04/27/2020 11:17:17

Order Number : 20471130

PO Number :

Customer : 60034583 Kraken Operating, LLC

Contact : Matt Bauerschlag

Address1 : 9821 Katy Freeway

Address2 : Suite 460

City St Zip : Houston TX 77024

Phone : (713) 360-7705

Fax :

Printed By : Crystal Gray

Entered By : Crystal Gray

Keywords : BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF TH

Notes :

Zones :

Ad Number : 11035405

Ad Key :

Salesperson : Legal - Legals - Helena

Publication : Independent Record

Section : Class Section

Sub Section : Legal

Category : 9999 Legals

Dates Run : 04/26/2020-04/26/2020

Days : 1

Size : 2 x 5.44, 49 lines

Words : 335

Ad Rate : Legal Line

Ad Price : 186.22

Amount Paid : 186.22

Amount Due : -0.00

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APR 30 2020

MONTANA BOARD OF OIL &
GAS CONSERVATION • BILLINGS

BEFORE THE BOARD OF OIL AND GAS CONSERVATION
OF THE STATE OF MONTANA

**NOTICE OF
INTENTION TO APPLY
FOR PERMIT TO DRILL
OIL AND GAS WELL**

In the Matter of the application of
Kraken Operating LLC
for a Permit to Drill an oil and gas well.

1. Name and address of Applicant:

Kraken Operating LLC
9805 Katy Freeway, Suite 300
Houston, TX 77024

2. Legal Description including County and Approximate Footages
of Surface Location of Proposed Oil and Gas Well:
(and projected bottom-hole location, if a directional or horizontal
well)

**Surface Loc: Lot 2 Section 4, T25N, R59E, Richland County,
MT. Footages: 452' FNL, 2322' FEL. EI: 2229'**

**Bottom Hole Loc: NWNE Section 21, T26N, R59E, Richland
County, MT. Footages: 205' FNL, 1860' FEL**

3. Total Depth Proposed to be Drilled:

26,293' Measured Depth, 10,587' TVD

Notice is hereby given that an application for permit to drill an oil
and gas well at the surface location set forth above
to the depth as stated will be filed with the Montana Board of Oil
and Gas Conservation. Pursuant to Rules 36.22.601
and 36.22.604, Administrative Rules of Montana, an interested
party may demand an opportunity to be heard by the Montana
Board of Oil and Gas Conservation concerning the application.
SUCH DEMAND FOR HEARING MUST BE RECEIVED BY THE
MONTANA BOARD OF OIL AND GAS CONSERVATION AT
THE ADDRESS SET FORTH BELOW NO LATER THAN TEN
(10) DAYS AFTER THE DATE OF PUBLICATION OF THIS NO-
TICE, OR THE APPLICATION WILL BE ACTED UPON BY THE
BOARD'S PETROLEUM ENGINEER WITHOUT HEARING. A
DEMAND MUST: (1) SET FORTH THE NAME, ADDRESS AND
TELEPHONE NUMBER OF EACH INTERESTED PARTY,
THEIR OWNERSHIP INTEREST IN THE LANDS SURROUND-
ING THE PROPOSED WELL, AND THE REASONS WHY A
HEARING IS SOUGHT; (2) BE SERVED UPON THE APPLI-
CANT BY COPY MAILED OR FAX TRANSMITTED TO THE
ADDRESS SET FORTH ABOVE.

Montana Board of Oil and Gas Conservation
2535 St. Johns Avenue
Billings MT 59102
Office: (406) 656-0040

Order Number : 20471130
 PO Number :
 Customer : 60034583 Kraken Operating, LLC
 Contact : Matt Bauerschlag
 Address1 : 9821 Katy Freeway
 Address2 : Suite 460
 City St Zip : Houston TX 77024
 Phone :
 Fax :
 Printed By : Crystal Gray
 Entered By : Crystal Gray
 Keywords : BEFORE THE BOARD OF OIL AND GAS CONSERVATION OF TH
 Notes :
 Zones :

Ad Number : 11035405
 Ad Key :
 Salesperson : Legal - Legals - Helena
 Publication : Independent Record
 Section : Class Section
 Sub Section : Legal
 Category : 9999 Legals
 Dates Run : 04/26/2020-04/26/2020
 Days : 1
 Size : 2 x 5.44, 49 lines
 Words : 335
 Ad Rate : Legal Line
 Ad Price : 186.22
 Amount Paid : 186.22
 Amount Due : -0.00

April 26, 2020

Fax: (406) 655-6015
MNAXLP

AFFIDAVIT OF PUBLICATION

STATE OF MONTANA,
County of Lewis & Clark

Crystal Gray

Being duly sworn, deposes and says;

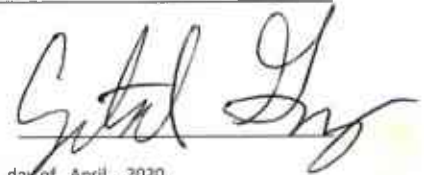
That she is the principal clerk of the Independent Record, a newspaper of general circulation published daily in the City of Helena, in the County of Lewis & Clark, State of Montana, and has charge of the advertisement thereof:

That the Permit to Drill

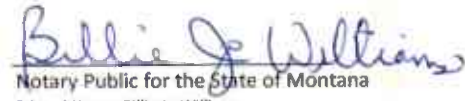
a true copy of which is hereto annexed, was published in said newspaper on the following dates: viz.:

April 26, 2020

making in all 1 publication(s)



Subscribed and sworn to me this 28 day of April, 2020.



Notary Public for the State of Montana

Printed Name: Billie Jo Williams

Residing at Clancy, Montana 59634

My commission expires August 31, 2022

(Notary Seal)

